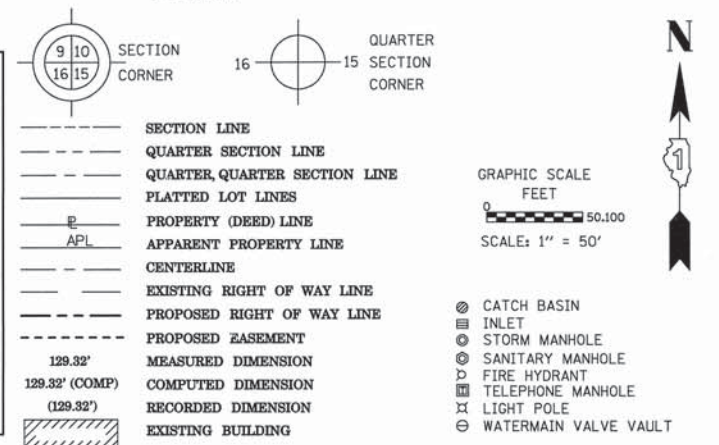


PART OF THE SOUTHEAST QUARTER OF SECTION 32 TWP. 41 N., R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES SQ.FT.	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT ACRES	SQUARE AREA FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHT0001E-A OHT0001E-B	ROSEMONT O'HARE HOTEL PROPERTIES L.L.C.	21.867	0.000 0	0	21.867	0.008 0.010	365 N/A	TEMPORARY TEMPORARY	09-32-401-017	
OHT0002TE	ROSEMONT O'HARE HOTEL OWNERSHIP, LLC	2.023	0.000 0	0	2.023	0.008	350	TEMPORARY	09-32-401-016	
OHT0003TE	JPMCC 2006-LDP9 HIGGINS LODGING, LLC	1.336	0.000 0	0	1.336	0.010	455	TEMPORARY	09-32-401-015	

LEGEND



Bearings are referenced to the Illinois State Plane Coordinate Grid System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

- IRON PIPE OR ROD FOUND ○ REPLACED AFTER CONSTRUCTION
- + CUT CROSS FOUND OR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
COUNTY OF COOK)

THIS IS TO CERTIFY THAT WE, SPACECO, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001157, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 32 & 33, TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN AND SECTIONS 4, 9, & 16, TOWNSHIP 40 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN ALL IN COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED THIS _____ DAY OF _____ 20 ____ A.D., AT ROSEMONT, ILLINOIS

REBECCA Y. POPECK
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003642
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

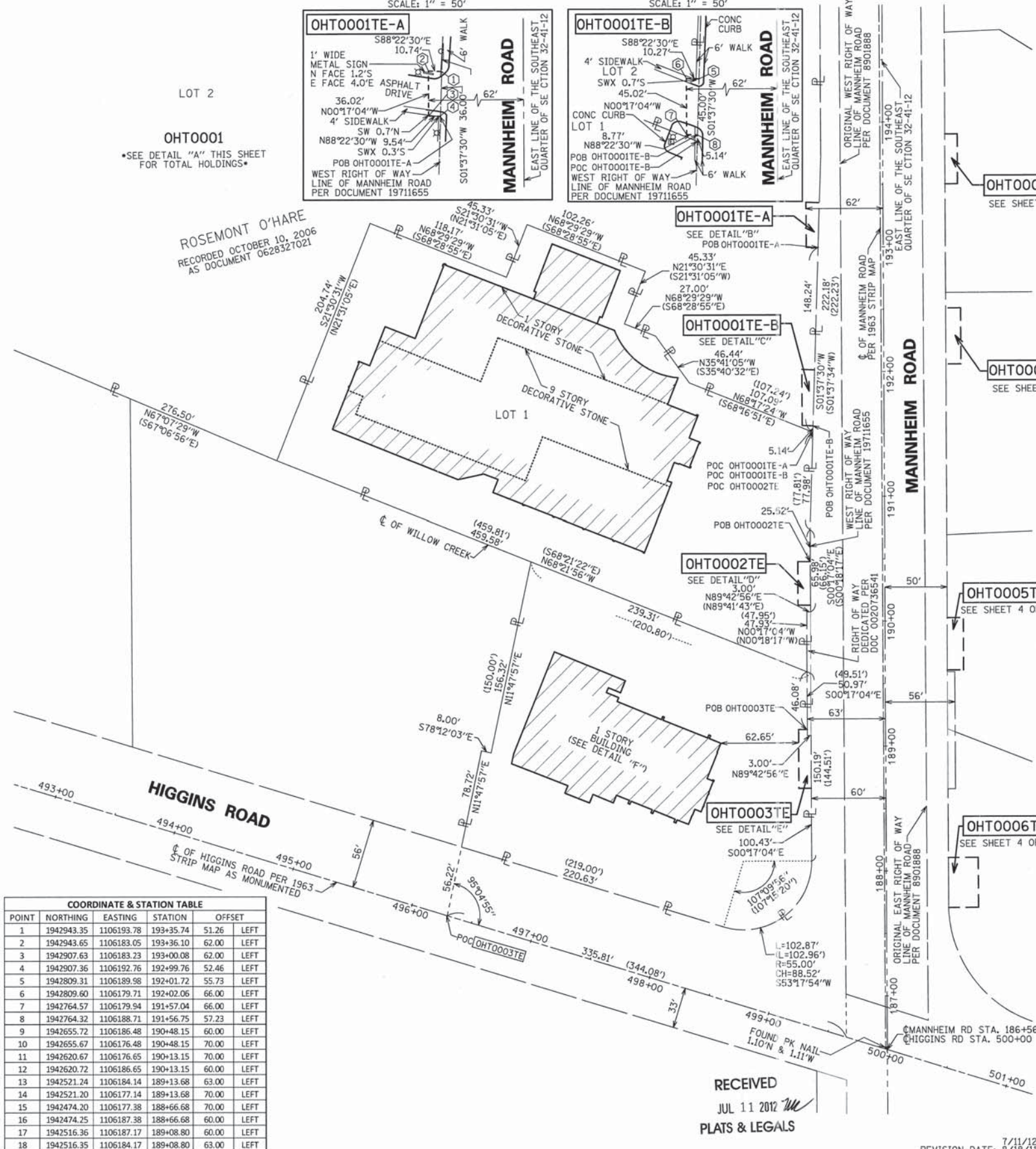
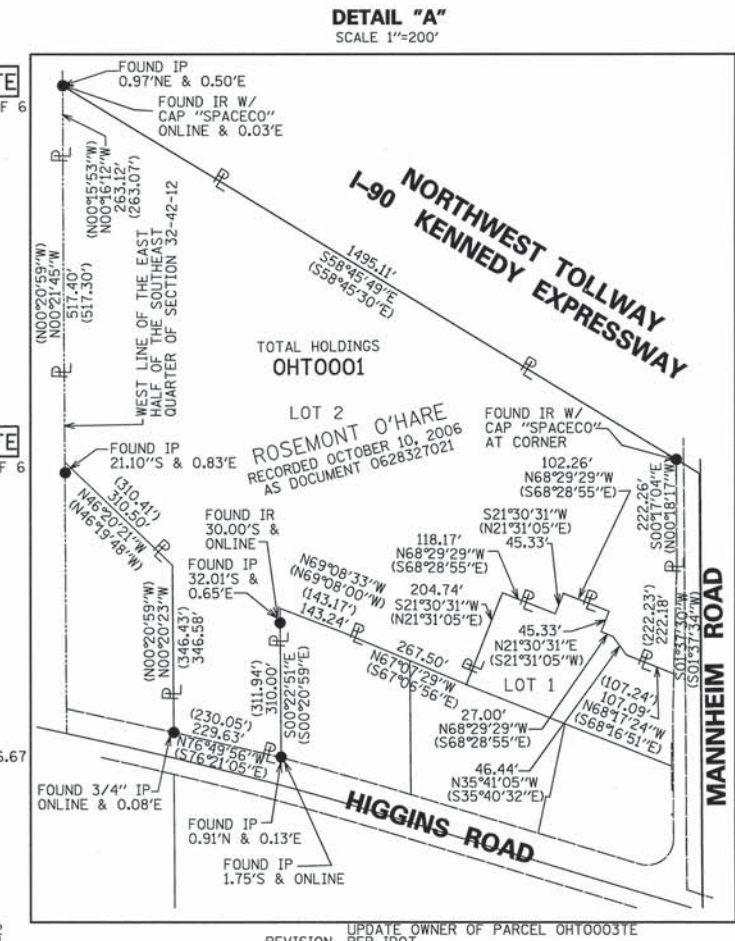
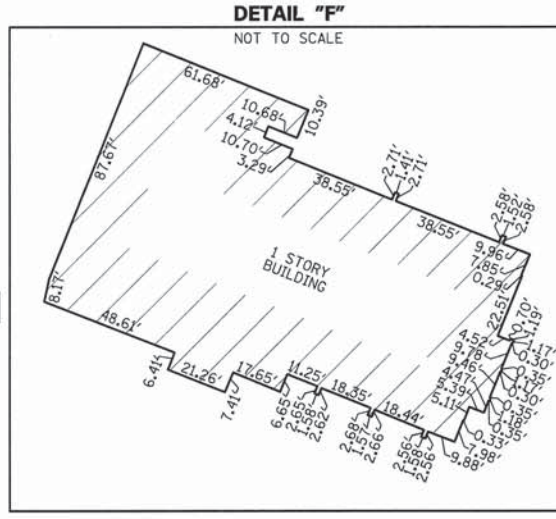
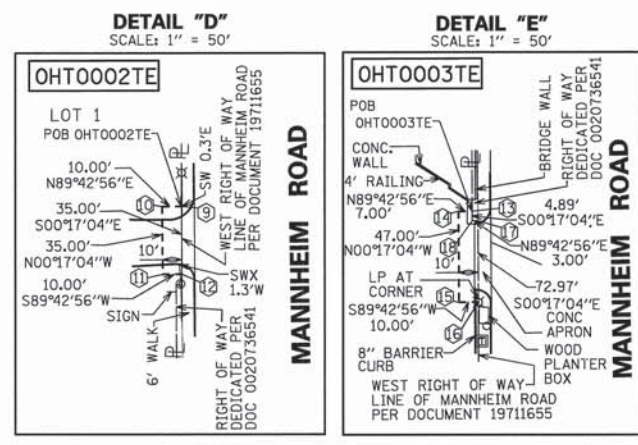
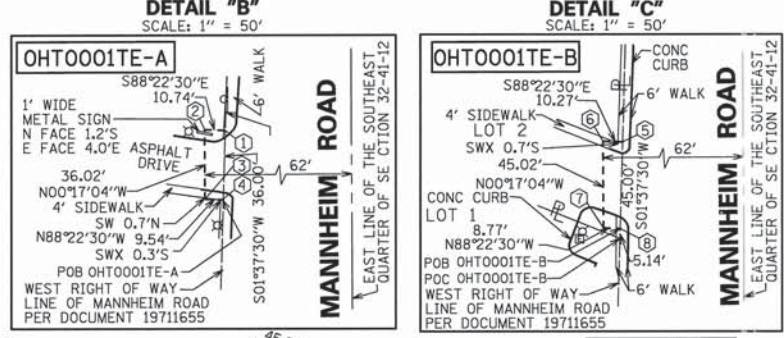
THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

SPACECO INC.
CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MANNHEIM ROAD (US ROUTE 12/45)

SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK
PROJECT: MANNHEIM RD JOB NO.: R-90-026-11
STATION 188+66.68 TO STATION 193+36.10
SCALE: 1"=50' SHEET 3 OF 6

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196



POINT	NORTHING	EASTING	STATION	OFFSET
1	1942943.35	1106193.78	193+35.74	51.26 LEFT
2	1942943.65	1106183.05	193+36.10	62.00 LEFT
3	1942907.63	1106183.23	193+00.08	62.00 LEFT
4	1942907.36	1106192.76	192+99.76	52.46 LEFT
5	1942809.31	1106189.58	192+01.72	55.73 LEFT
6	1942809.60	1106179.71	192+02.06	66.00 LEFT
7	1942764.57	1106179.94	191+57.04	66.00 LEFT
8	1942764.32	1106188.71	191+56.75	57.23 LEFT
9	1942655.72	1106186.48	190+48.15	60.00 LEFT
10	1942655.67	1106176.48	190+48.15	70.00 LEFT
11	1942620.67	1106176.65	190+13.15	70.00 LEFT
12	1942620.72	1106186.65	190+13.15	60.00 LEFT
13	1942521.24	1106184.14	189+13.68	63.00 LEFT
14	1942521.20	1106177.14	189+13.68	70.00 LEFT
15	1942474.20	1106177.38	188+66.68	70.00 LEFT
16	1942474.25	1106187.38	188+66.68	60.00 LEFT
17	1942516.36	1106187.17	189+08.80	60.00 LEFT
18	1942516.35	1106184.17	189+08.80	63.00 LEFT

RECEIVED
JUL 11 2012
PLATS & LEGALS

REVISION DATE: 7/11/12
8/18/11

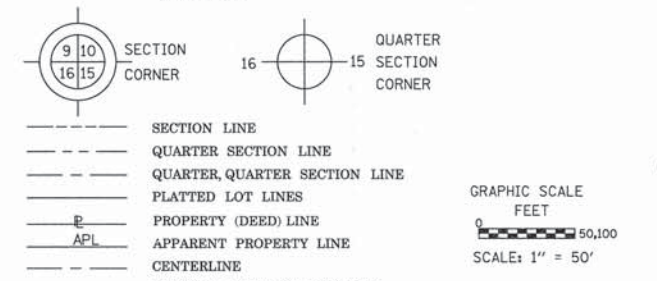
REVISION PER IDOT
UPDATE OWNER OF PARCEL OHT0003TE

MADE BY JWM

PART OF THE SOUTHWEST QUARTER OF SECTION 33 TWP. 41 N., R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	SO. FT.	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHT0004TE-A OHT0004TE-B OHT0004TE-C	CITY OF DES PLAINES, A MUNICIPAL CORPORATION	4.287	0.000	0	0	4.287	0.009	400	TEMPORARY	09-33-305-013	
OHT0005TE	MCDONALD'S CORPORATION, A DELAWARE CORPORATION	1.880	0.000	0	0	1.880	0.022	N/A	TEMPORARY	09-33-305-014 09-33-305-010	
									TEMPORARY	09-33-305-011 09-33-305-012	

LEGEND



- CATCH BASIN
 - ⊕ INLET
 - ⊕ STORM MANHOLE
 - ⊕ SANITARY MANHOLE
 - ⊕ FIRE HYDRANT
 - ⊕ TELEPHONE MANHOLE
 - ⊕ LIGHT POLE
 - ⊕ WATERMAIN VALVE VAULT
- Bearings are referenced to the Illinois State Plane Coordinate Grid System, NAD83, East Zone, as provided by the Illinois Department of Transportation.
- IRON PIPE OR ROD FOUND ○ REPLACED AFTER CONSTRUCTION
 - + CUT CROSS FOUND OR SET
 - T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
 - T2
 - T3
 - BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
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STATE OF ILLINOIS)
COUNTY OF COOK)

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DATED THIS _____ DAY OF _____ 20 ____ A.D., AT ROSEMONT, ILLINOIS

REBECCA Y. POPECK
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003642
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

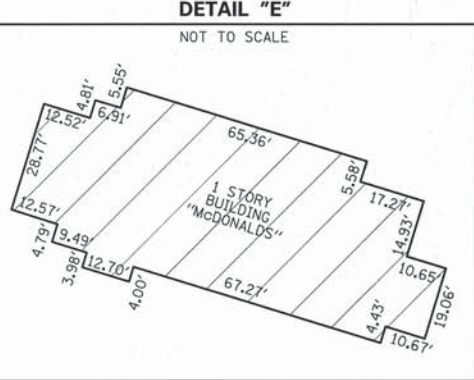
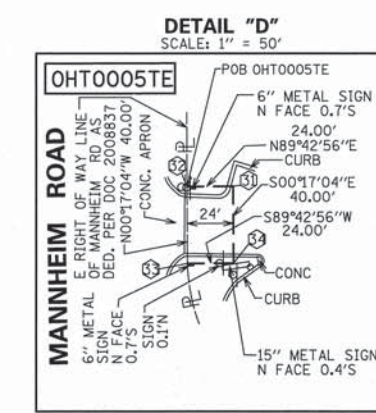
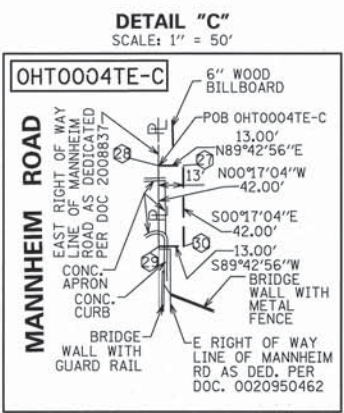
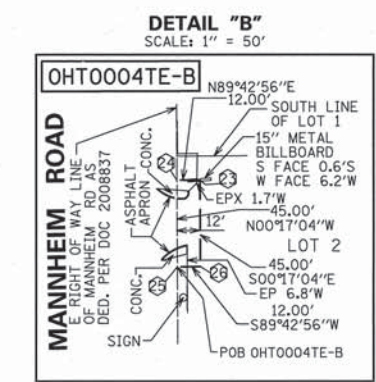
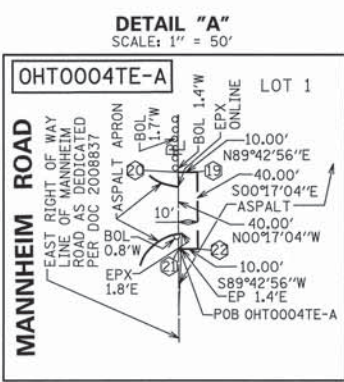
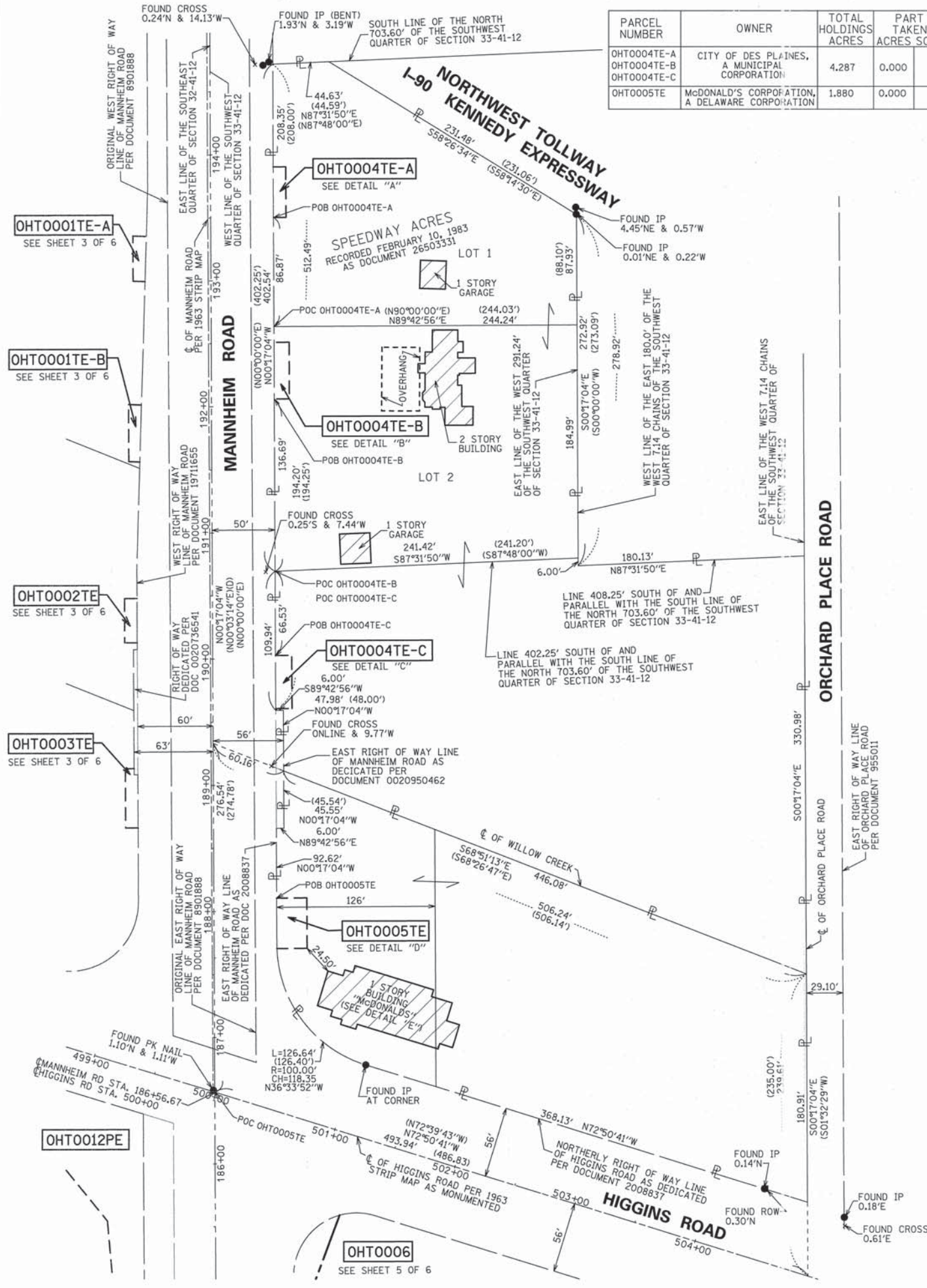
SPACECO INC.
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PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MANNHEIM ROAD (US ROUTE 12/45)

SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK
PROJECT: MANNHEIM RD JOB NO.: R-90-026-11
STATION 187+70.50 TO STATION 193+90.23
SCALE: 1"=50' SHEET 4 OF 6

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

RECEIVED
AUG 19 2011
PLATS & LEGALS

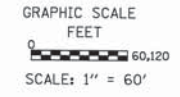


POINT	NORTHING	EASTING	STATION	OFFSET
19	1942998.38	1106304.78	193+90.23	60.00 RIGHT
20	1942998.33	1106294.78	193+90.23	50.00 RIGHT
21	1942998.33	1106294.98	193+50.23	50.00 RIGHT
22	1942998.38	1106304.98	193+50.23	60.00 RIGHT
23	1942859.01	1106307.47	192+50.84	62.00 RIGHT
24	1942858.95	1106295.47	192+50.84	50.00 RIGHT
25	1942813.95	1106295.69	192+05.84	50.00 RIGHT
26	1942814.01	1106307.69	192+05.84	62.00 RIGHT
27	1942610.80	1106309.70	190+02.62	63.00 RIGHT
28	1942610.73	1106296.70	190+02.62	50.00 RIGHT
29	1942568.73	1106296.91	189+60.62	50.00 RIGHT
30	1942568.80	1106309.91	189+60.62	63.00 RIGHT
31	1942418.73	1106321.65	188+10.50	74.00 RIGHT
32	1942418.61	1106297.65	188+10.50	50.00 RIGHT
33	1942378.61	1106297.85	187+70.50	50.00 RIGHT
34	1942378.73	1106321.85	187+70.50	74.00 RIGHT

PART OF THE SOUTHWEST QUARTER OF SECTION 33 TWP. 41 N. & THE NORTHWEST QUARTER OF SECTION 4 TWP. 40 N R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	SO. FT.	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHT0006	FELCOR LODGING LIMITED PARTNERSHIP	3.568	0.222	N/A	0	3.346	0.000	0	N/A	09-33-311-050	
OHT0007	BRE/COH IL, LLC, A DELAWARE LIMITED LIABILITY COMPANY	10.497	0.346	N/A	0	10.151	0.018	N/A	TEMPORARY	09-33-311-051 09-33-311-052 09-33-311-053 09-33-311-054 09-33-311-055 09-33-311-056 09-33-311-058 09-33-311-059	
OHT0011PE-A OHT0011PE-B	CITY OF CHICAGO, A MUNICIPAL CORPORATION	6.471	0.000	N/A	0.038	6.471	0.092 0.007	N/A 319	PERMANENT PERMANENT	09-33-311-018 12-04-101-004	

LEGEND



Bearings are referenced to the Illinois State Plane Coordinate Grid System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

IRON PIPE OR ROD FOUND ○ REPLACED AFTER CONSTRUCTION
CUT CROSS FOUND OR SET

● THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.

● BT1
● BT2
● BT3 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.

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STATE OF ILLINOIS)
COUNTY OF COOK)

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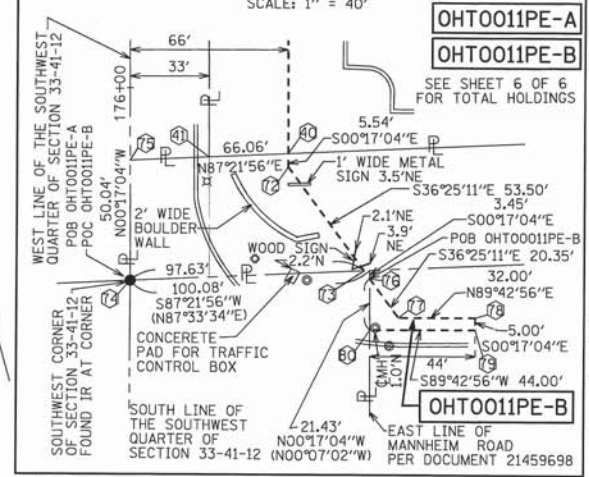
DATED THIS _____ DAY OF _____ 20 ____ A.D., AT ROSEMONT, ILLINOIS

RECEIVED
JUN 05 2012
PLATS & LEGALS

REBECCA Y. POPECK
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003642
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

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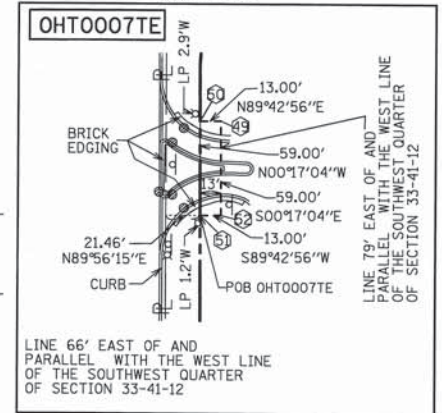
DETAIL "B"
SCALE: 1" = 40'



COORDINATE & STATION TABLE

POINT	NORTHING	EASTING	STATION	OFFSET
35	1942166.96	1106347.66	185+58.60	98.76 RIGHT
36	1942109.26	1106326.19	185+01.00	77.00 RIGHT
37	1941822.26	1106327.61	182+14.00	77.00 RIGHT
38	1941730.68	1106320.50	181+22.46	69.43 RIGHT
39	1941689.21	1106317.27	180+81.00	66.00 RIGHT
40	1941180.75	1106319.80	175+72.54	66.00 RIGHT
41	1941179.23	1106286.80	175+71.18	33.00 RIGHT
49	1941654.39	1106330.45	180+46.12	79.00 RIGHT
50	1941654.39	1106317.45	180+46.12	66.00 RIGHT
51	1941595.33	1106317.74	179+87.12	66.00 RIGHT
52	1941595.33	1106330.74	179+87.12	79.00 RIGHT
72	1941175.21	1106319.82	175+67.00	66.00 RIGHT
73	1941132.16	1106351.59	175+23.79	97.55 RIGHT
74	1941127.67	1106254.06	175+19.79	0.00 LEFT
75	1941177.71	1106253.81	175+69.83	0.00 LEFT
76	1941282.82	1106354.06	175+20.44	100.00 RIGHT
77	1941112.44	1106366.14	175+04.00	112.00 RIGHT
78	1941112.60	1106398.14	175+04.00	144.00 RIGHT
79	1941107.60	1106398.16	174+99.00	144.00 RIGHT
80	1941107.38	1106354.16	174+99.00	100.00 RIGHT

DETAIL "A"
SCALE: 1" = 60'



REVISION DATE: 06/05/12
REVISION DATE: 01/12/12
REVISION DATE: 8/18/11

REVISION PER IDOT (OHT0009,10,11A,11B CHANGE TO PE)
REVISION OHT0007 UPDATE OWNER
REVISION PER IDOT

MADE BY SDS
MADE BY RYP
MADE BY JWM

SPACECO INC.

CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS

9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MANNHEIM ROAD (US ROUTE 12/45)

SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK
PROJECT: MANNHEIM RD JOB NO.: R-90-026-11
STATION 174+99.00 TO STATION 185+68.60
SCALE: 1"=60' SHEET 5 OF 6

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

PART OF THE SOUTHEAST QUARTER OF SECTION 32 TWP. 41 N. & THE NORTHWEST QUARTER OF SECTION 4 TWP. 40 N R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

LEGEND

SECTION CORNER 9 10 16 15
 QUARTER SECTION CORNER 16 15

SECTION LINE
 QUARTER SECTION LINE
 QUARTER, QUARTER SECTION LINE
 PLATTED LOT LINES
 PROPERTY (DEED) LINE
 APPARENT PROPERTY LINE
 CENTERLINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED RIGHT OF WAY LINE
 PROPOSED EASEMENT
 MEASURED DIMENSION
 129.32'
 129.32' (COMP)
 (129.32')
 RECORDED DIMENSION
 EXISTING BUILDING

GRAPHIC SCALE
 FEET
 0 60, 120
 SCALE: 1" = 60'

CATCH BASIN
 INLET
 STORM MANHOLE
 SANITARY MANHOLE
 FIRE HYDRANT
 TELEPHONE MANHOLE
 LIGHT POLE
 WATERMAIN VALVE VAULT

Bearings are referenced to the Illinois State Plane Coordinate Grid System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

- IRON PIPE OR ROD FOUND ○ REPLACED AFTER CONSTRUCTION
- + CUT CROSS FOUND OR SET
- T1 T2 T3 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
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STATE OF ILLINOIS)
 COUNTY OF COOK)

THIS IS TO CERTIFY THAT WE, SPACECO, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001157, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 32 & 33, TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN AND SECTIONS 4, 9, & 16, TOWNSHIP 40 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN ALL IN COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED THIS _____ DAY OF _____ 20 ____ A.D., AT ROSEMONT, ILLINOIS

REBECCA Y. POPECK
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003642
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

RECEIVED
 JUN 05 2012
 PLATS & LEGALS

SPACECO INC.

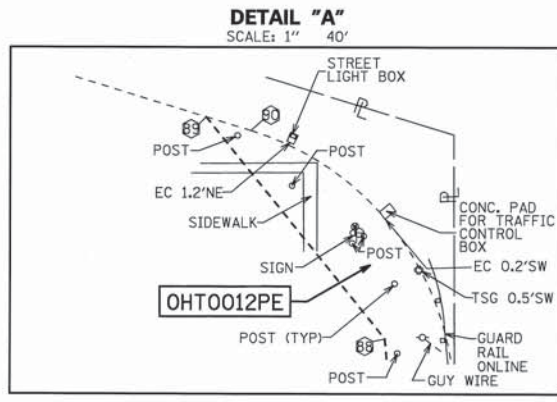
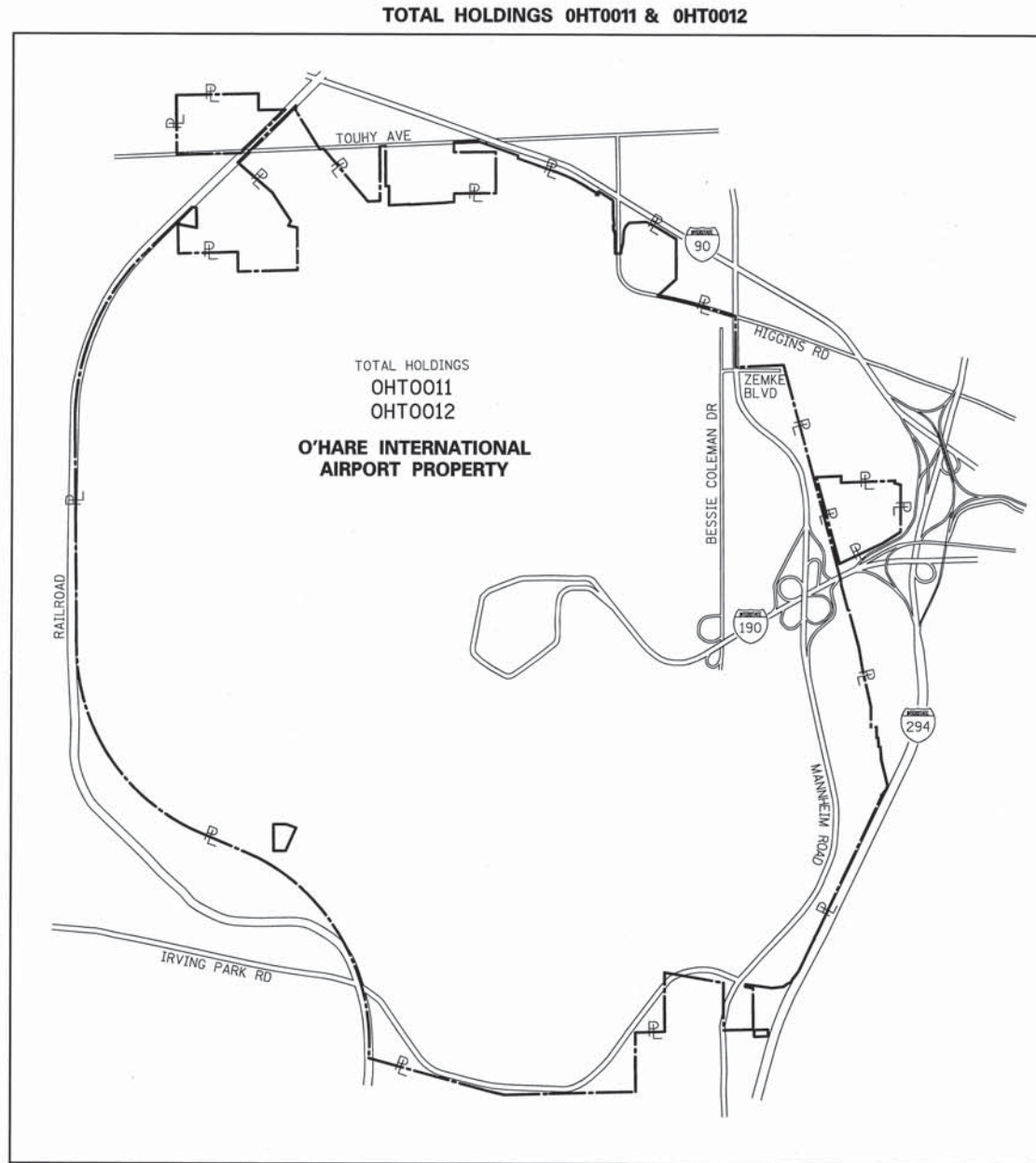
**CONSULTING ENGINEERS
 SITE DEVELOPMENT ENGINEERS
 LAND SURVEYORS**

9575 W. Higgins Road, Suite 700
 Rosemont, Illinois 60018
 Phone: (847) 696-4060 Fax: (847) 696-4065

PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 MANNHEIM ROAD (US ROUTE 12/45)

SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK
 PROJECT: MANNHEIM RD JOB NO.: R-90-026-11
 STATION 174+68.72 TO STATION 186+47.58
 SCALE: 1"=60' SHEET 6 OF 6

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196



COORDINATE & STATION TABLE

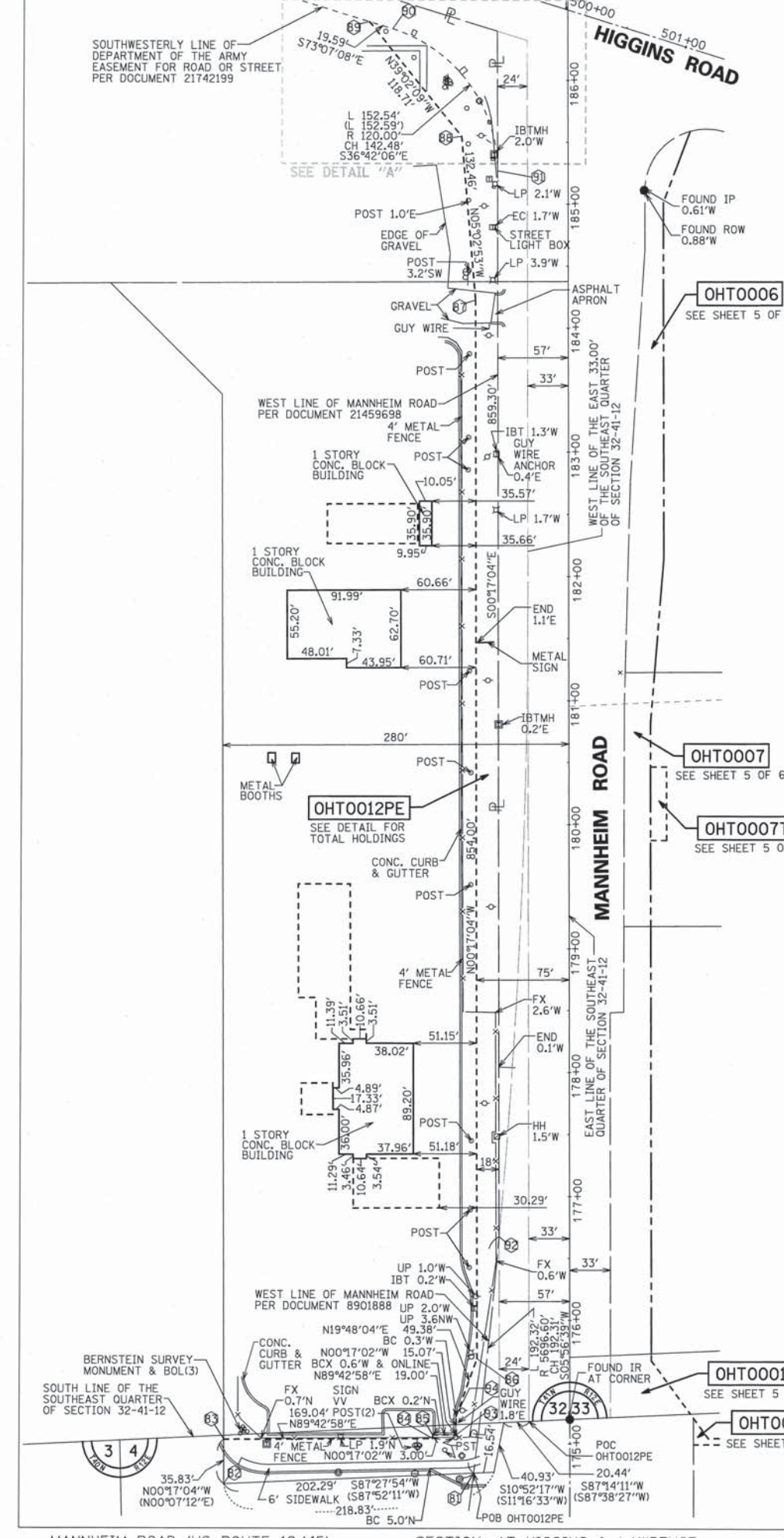
POINT	NORTHING	EASTING	STATION	OFFSET
81	1941084.17	1106176.41	174+76.67	77.86 LEFT
82	1941075.22	1105974.32	174+68.72	280.00 LEFT
83	1941111.05	1105974.14	175+04.56	280.00 LEFT
84	1941111.89	1106143.18	175+04.56	110.96 LEFT
85	1941114.89	1106143.18	175+07.56	110.94 LEFT
86	1941176.51	1106178.82	175+69.00	75.00 LEFT
87	1942030.50	1106174.58	184+23.00	75.00 LEFT
88	1942162.45	1106162.92	185+55.00	86.00 LEFT
89	1942254.65	1106088.16	186+47.58	160.30 LEFT
90	1942248.96	1106106.91	186+41.79	141.58 LEFT
91	1942134.73	1106192.06	185+27.14	57.00 LEFT
92	1941275.44	1106196.33	176+67.84	57.00 LEFT
93	1941114.98	1106162.16	175+07.55	91.96 LEFT
94	1941130.05	1106162.09	185+22.62	91.96 LEFT

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES SQ.FT.	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHT0012PE	CITY OF CHICAGO, ILLINOIS A MUNICIPAL CORPORATION	6.471	N/A	N/A	6.471	0.655	N/A	PERMANENT	N/A

REVISION DATE: 06/05/12
 REVISION DATE: 01/17/12
 REVISION DATE: 8/18/11

REVISION PER IDOT (OHT0009,10,11A,11B CHANGE TO PE)
 REVISION OHT0012PE CONFIGURATION
 REVISION PER IDOT

MADE BY SDS
 MADE BY RYP
 MADE BY JWM



- ① POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- ② POLYUREA PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
- ③ POLYUREA PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
- ④ POLYUREA PAVEMENT MARKING - LINE 4" YELLOW DOUBLE CENTER LINE
- ⑤ POLYUREA PAVEMENT MARKING - LINE 6" WHITE
- ⑥ POLYUREA PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP

- ⑦ POLYUREA PAVEMENT MARKING - LINE 12" YELLOW @45 DEGREE @75' C-C MIN OF 5
- ⑧ POLYUREA PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @75' C-C MIN OF 5
- ⑨ POLYUREA PAVEMENT MARKING - LINE 24" WHITE
- ⑩ POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS
- ⑪ POLYUREA PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
- ⑫ POLYUREA PAVEMENT MARKING - LINE 6" WHITE 3' DASH, 9' SKIP
- ⑬ POLYUREA PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
- ⑭ RAISED REFLECTIVE PAVEMENT MARKERS
- ⑮ RAISED REFLECTIVE PAVEMENT MARKERS (BRIDGE)

DIRECTION OF TRAFFIC

EB - EASTBOUND
WB - WESTBOUND
NB - NORTHBOUND
SB - SOUTHBOUND

ROADWAY

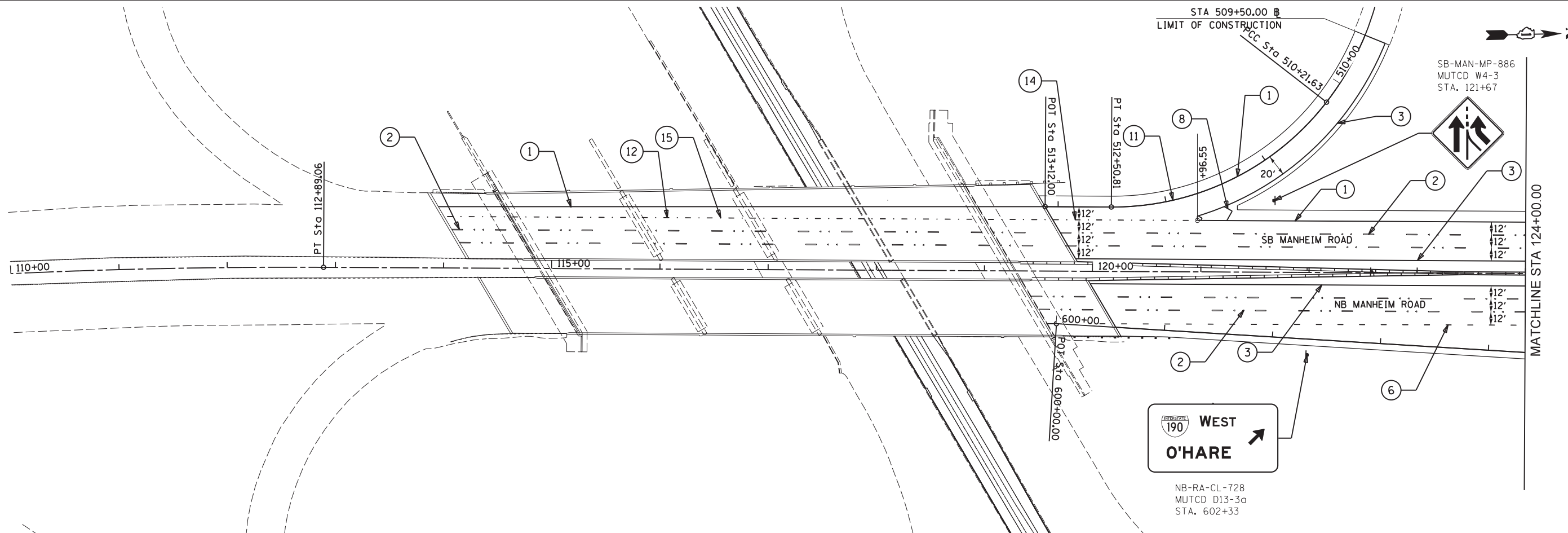
MAN - MANNHEIM ROAD
HG - HIGGINS ROAD (IL 72)
ZK - ZEMKE BOULEVARD
190 - RAMP

SIGN PANEL NUMBER

MOUNTING TYPE

TR - TRUSS
CL - CANTILEVER
BR - BRIDGE MOUNTED
WP - WOOD POST
TS - TELESCOPING STEEL
BS - BREAKAWAY STEEL
LP - LIGHT POLE
TC - TRAFFIC SIGNAL
MP - METAL POLE
EX - RELOCATED

NB-M-LP-1
MUTCD R2-1
STA. XX+00



Globetrotters*
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = stephen.schuh	DESIGNED MT	REVISED -
	DRAWN MT	REVISED -
PLOT SCALE = 50.0000' / in.	CHECKED VT	REVISED -
PLOT DATE = 10/19/2012	DATE 10/19/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

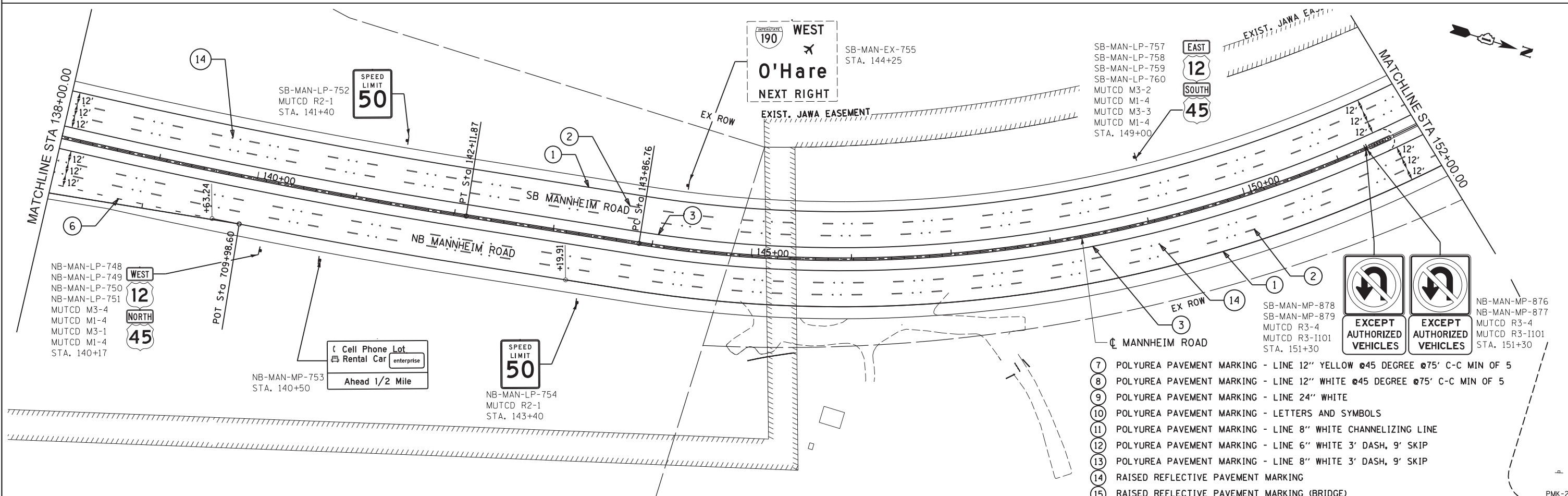
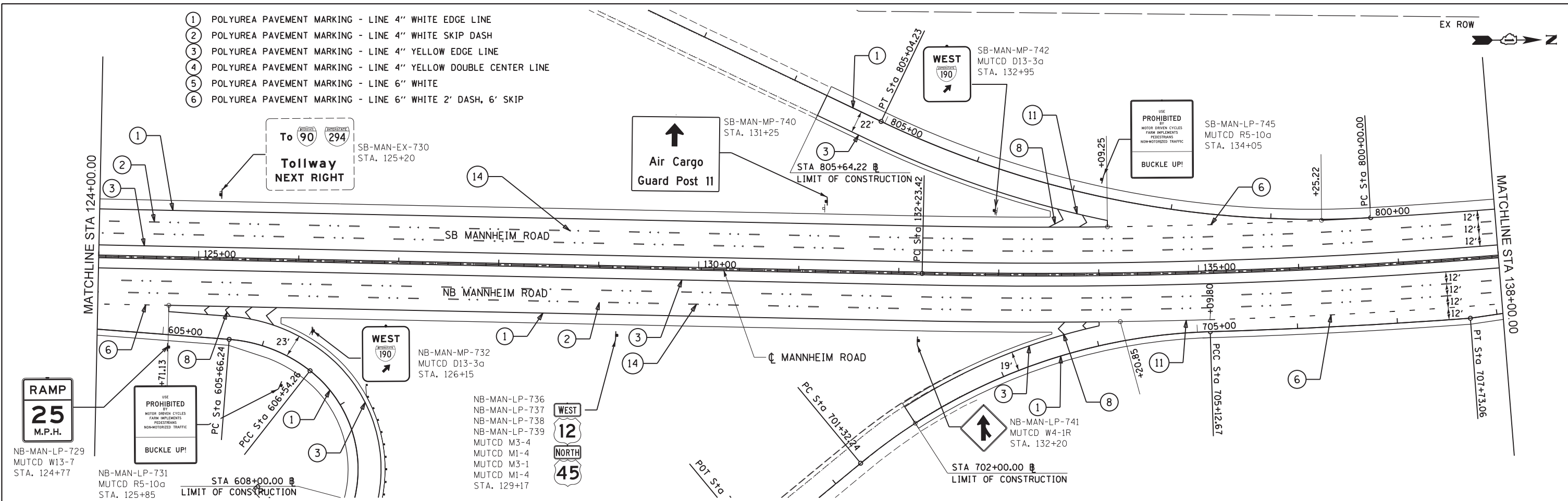
**PAVEMENT MARKING & SIGNING PLAN
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 119+38.52 TO STA. 124+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	205
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

PMK-1

- ① POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- ② POLYUREA PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
- ③ POLYUREA PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
- ④ POLYUREA PAVEMENT MARKING - LINE 4" YELLOW DOUBLE CENTER LINE
- ⑤ POLYUREA PAVEMENT MARKING - LINE 6" WHITE
- ⑥ POLYUREA PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP



- ⑦ POLYUREA PAVEMENT MARKING - LINE 12" YELLOW @45 DEGREE @75' C-C MIN OF 5
- ⑧ POLYUREA PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @75' C-C MIN OF 5
- ⑨ POLYUREA PAVEMENT MARKING - LINE 24" WHITE
- ⑩ POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS
- ⑪ POLYUREA PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
- ⑫ POLYUREA PAVEMENT MARKING - LINE 6" WHITE 3' DASH, 9' SKIP
- ⑬ POLYUREA PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
- ⑭ RAISED REFLECTIVE PAVEMENT MARKING
- ⑮ RAISED REFLECTIVE PAVEMENT MARKING (BRIDGE)

Globetrotters[®]
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, IL 60606

USER NAME = stephen.schuh	DESIGNED MT	REVISED -
DRAWN MT	REVISED -	
PLOT SCALE = 50.0000' / in.	CHECKED VT	REVISED -
PLOT DATE = 10/19/2012	DATE 10/19/2012	REVISED -

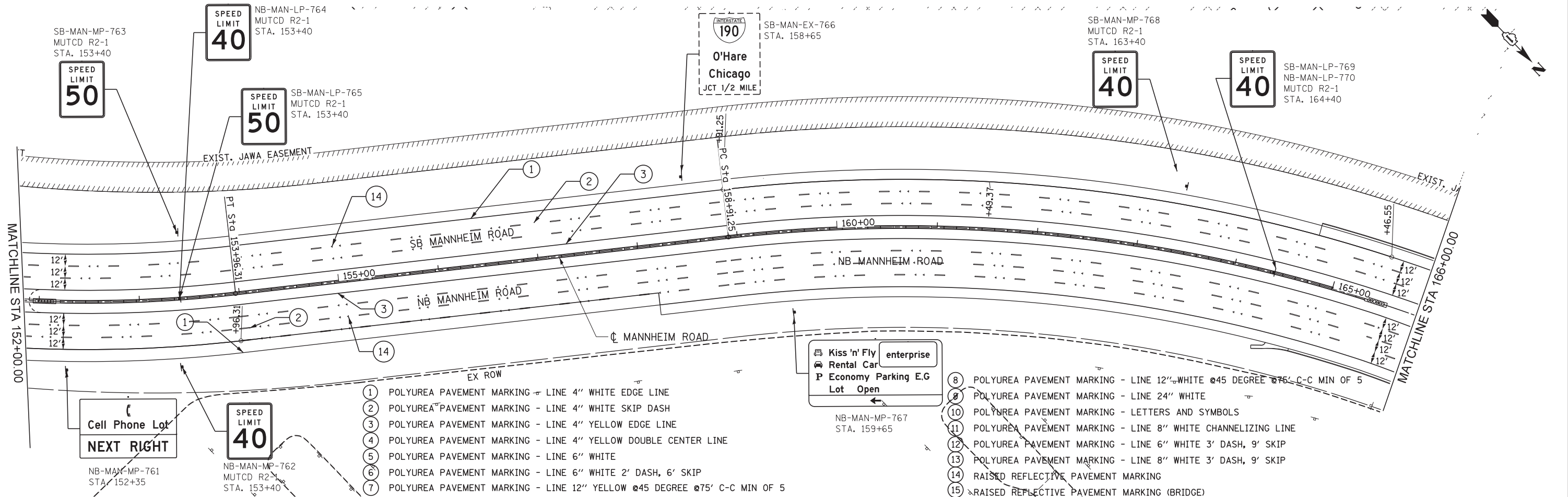
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING & SIGNING PLAN
MANNHEIM ROAD**

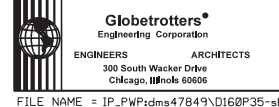
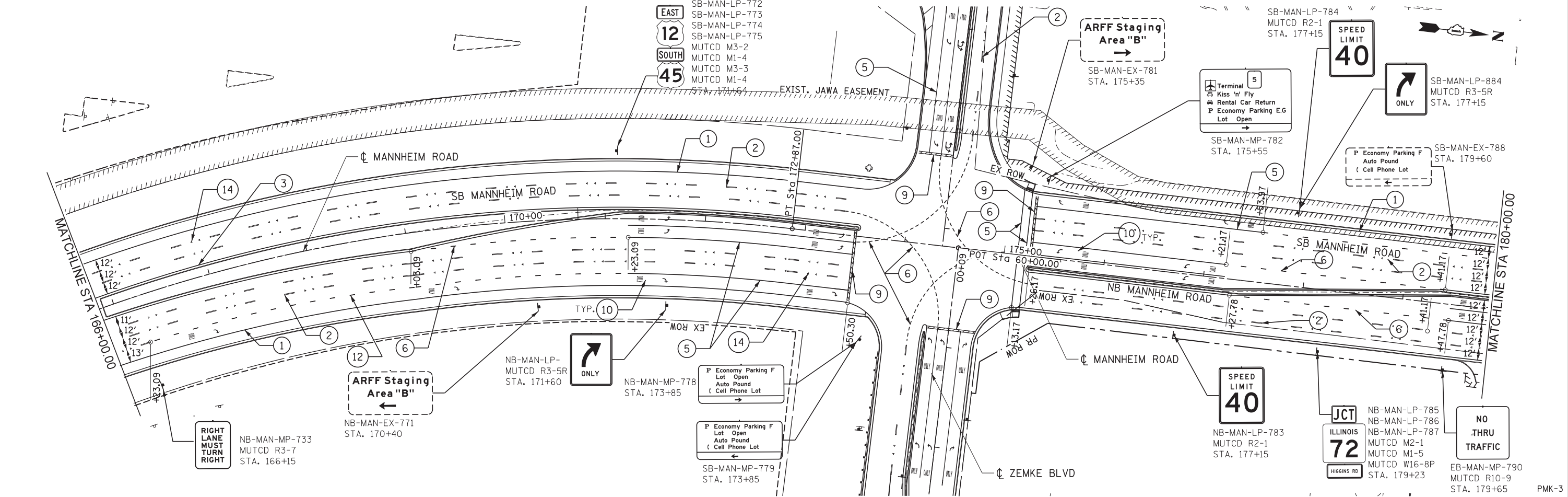
SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 124+00.00 TO STA. 152+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	206
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

FILE NAME = c:\cadd\lib\pw\sschuh\p\greet.lakes\dms47849\0160P35-sht-plan.pmk2.dgn



- 1 POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- 2 POLYUREA PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
- 3 POLYUREA PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
- 4 POLYUREA PAVEMENT MARKING - LINE 4" YELLOW DOUBLE CENTER LINE
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- 6 POLYUREA PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP
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- 11 POLYUREA PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
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- 13 POLYUREA PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
- 14 RAISED REFLECTIVE PAVEMENT MARKING
- 15 RAISED REFLECTIVE PAVEMENT MARKING (BRIDGE)



USER NAME = lsupencheck	DESIGNED MT	REVISED -
PLOT SCALE = 50:1	DRAWN MT	REVISED -
PLOT DATE = 30-NOV-2012	CHECKED VT	REVISED -
	DATE 10/19/2012	REVISED -

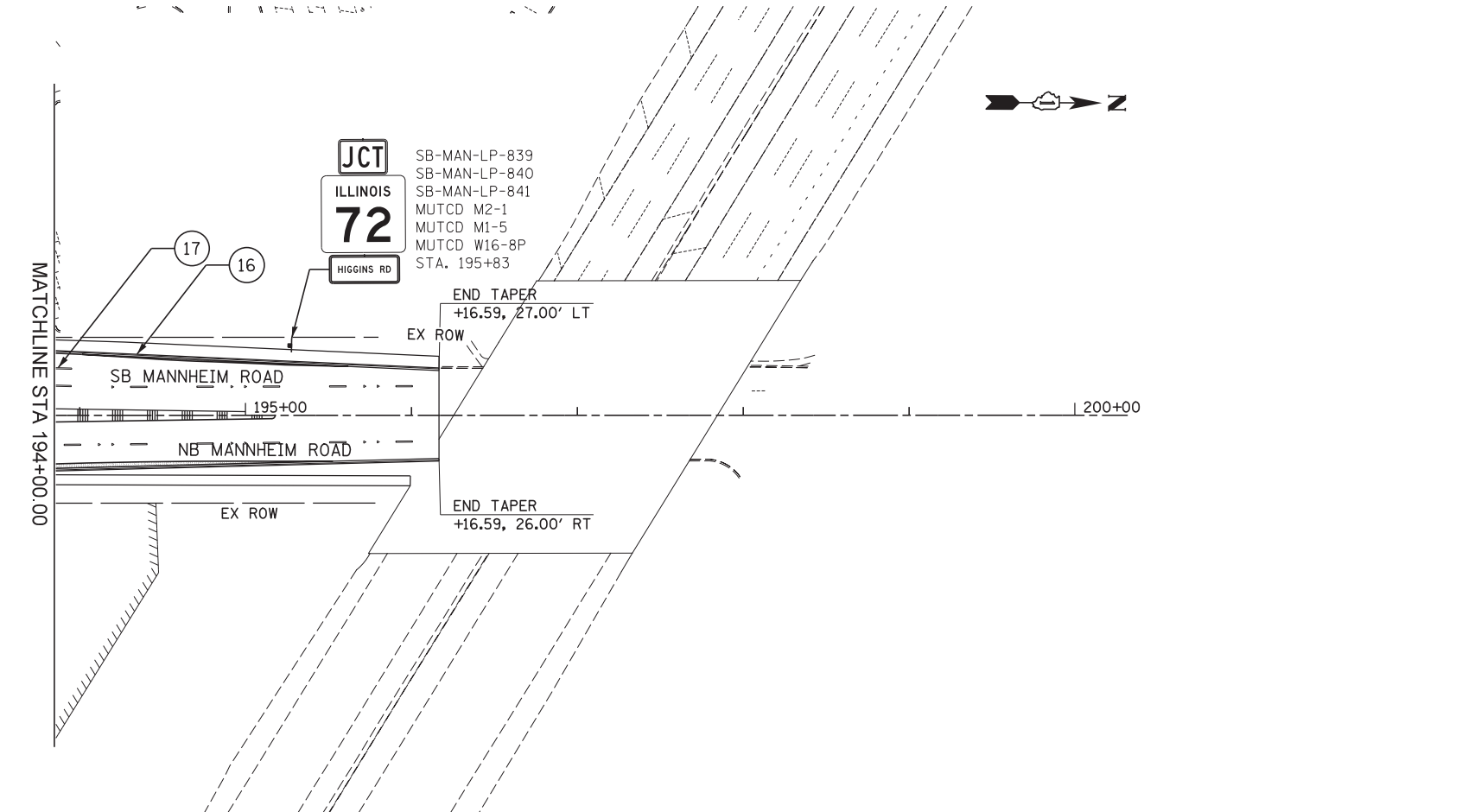
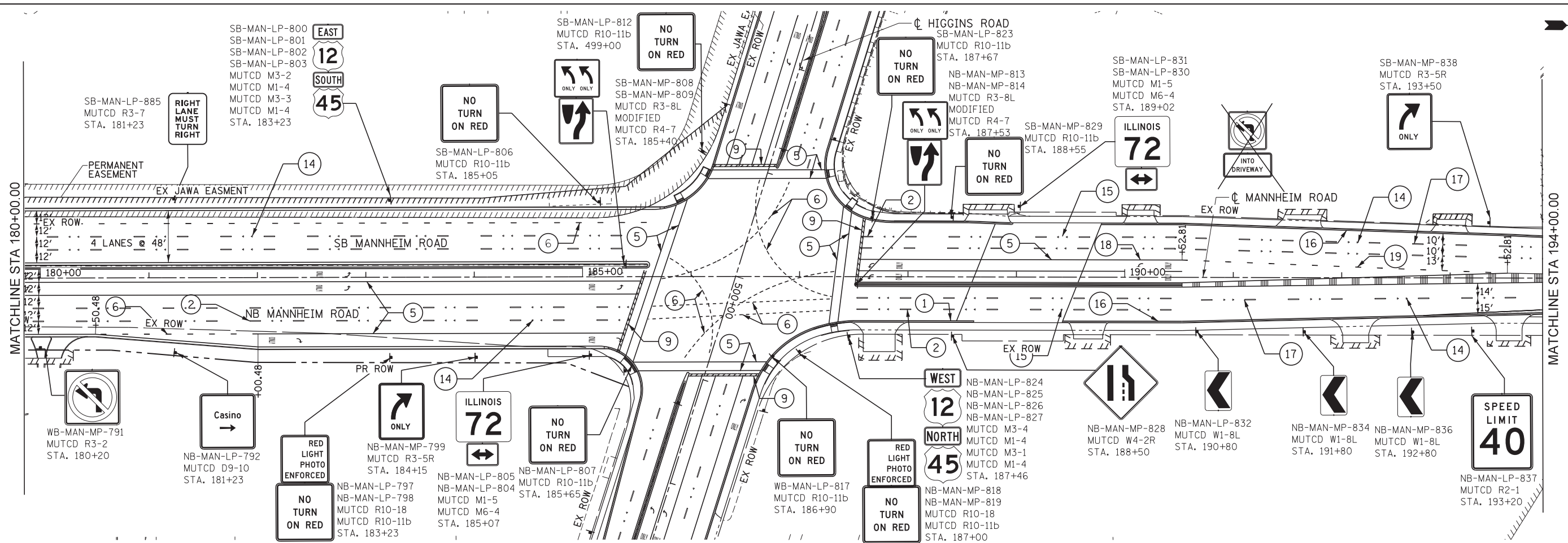
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING & SIGNING PLAN
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 152+00.00 TO STA. 180+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	207
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

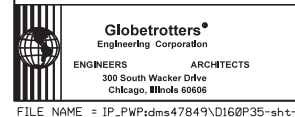
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DIRECTION OF TRAFFIC	SIGN PANEL NUMBER	MOUNTING TYPE
EB - EASTBOUND		TR - TRUSS
WB - WESTBOUND		CL - CANTILEVER
NB - NORTHBOUND		BR - BRIDGE MOUNTED
SB - SOUTHBOUND		WP - WOOD POST
		TS - TELESCOPING STEEL
		BS - BREAKAWAY STEEL
		LP - LIGHT POLE
		TC - TRAFFIC SIGNAL
		MP - METAL POLE
		EX - RELOCATED

- ① POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
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- ⑬ POLYUREA PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
- ⑭ RAISED REFLECTIVE PAVEMENT MARKING
- ⑮ RAISED REFLECTIVE PAVEMENT MARKING (BRIDGE)
- ⑯ THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- ⑰ THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
- ⑱ THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE
- ⑲ THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP

PMK-4



USER NAME = lsupencheck	DESIGNED MT	REVISED -
PLOT SCALE = 50:1	DRAWN MT	REVISED -
PLOT DATE = 30-NOV-2012	CHECKED VT	REVISED -
	DATE 10/19/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING & SIGNING PLAN MANNHEIM ROAD			
SCALE: 1" = 50'	SHEET NO. OF SHEETS	STA. 180+00.00 TO STA. 196+15.00	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	208
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



SB-BC-MP-710
MUTCD R1-1
STA. 7+73



WB-BC-MP-706
WB-BC-EX-707
STA. 8+20

Terminal 5
Economy Parking E
Kiss 'n' Fly
Rental Car Return

AVIATION ADMINISTRATIVE BUILDING

ARFF Staging Area "B"



NO STOPPING
PARKING
STANDING
TOW AWAY ZONE

SB-BC-LP-704
MUTCD R8-5
STA. 8+94

SB-BC-LP-700
MUTCD R8-5
STA. 11+35

NO STOPPING
PARKING
STANDING
TOW AWAY ZONE

SIGNATURE
FLIGHT
SUPPORT

Economy Lot F
Cell Phone Lot
Mannheim North
Mannheim South
Chicago

WB-ZK-MP-714
WB-ZK-MP-715
STA. 51+39

EB-ZK-MP-716
STA. 52+05

WEST
TOLL
INTERSTATE
90

WB-ZK-LP-717
WB-ZK-LP-718
WB-ZK-LP-719
WB-ZK-LP-720
MUTCD M3-4
MUTCD M4-5
MUTCD M1-1
MUTCD M6-1
STA. 61+68

TO
EAST
INTERSTATE
90
INTERSTATE
294
INTERSTATE
190

WB-ZK-LP-722
WB-ZK-LP-723
WB-ZK-LP-724
WB-ZK-LP-725
WB-ZK-LP-726
WB-ZK-LP-734
MUTCD M4-5
MUTCD M3-2
MUTCD M1-1
MUTCD M1-1
MUTCD M1-1
MUTCD M6-1L
STA. 62+57

ONLY ONLY

NO STOPPING
PARKING
STANDING
TOW AWAY ZONE

NB-BC-MP-
MUTCD R3-8L
MODIFIED
STA. 9+00

NO STOPPING
PARKING
STANDING
TOW AWAY ZONE

NB-BC-LP-705
MUTCD R8-5
STA. 9+37

NO STOPPING
PARKING
STANDING
TOW AWAY ZONE

NB-BC-LP-702
MUTCD R8-5
STA. 10+61

Economy Parking F
Chicago, IL 90, 90, 294
Mannheim Rd. South
RIGHT LANE
Mannheim Rd. North
LEFT LANE

NB-BC-EX-701
STA. 11+40

Economy F
Cell Phone
LOT

EB-ZK-EX-721
STA. 61+91

ONLY ONLY

WB-ZK-MP-
MUTCD R3-8L
MODIFIED
STA. 62+32

- 1 POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- 2 POLYUREA PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
- 3 POLYUREA PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
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- 12 POLYUREA PAVEMENT MARKING - LINE 6" WHITE 3' DASH, 9' SKIP
- 13 POLYUREA PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
- 14 RAISED REFLECTIVE PAVEMENT MARKING
- 15 RAISED REFLECTIVE PAVEMENT MARKING (BRIDGE)

EB - MAN - TR - 10

DIRECTION OF TRAFFIC

SIGN PANEL NUMBER

MOUNTING TYPE

TR - TRUSS
CL - CANTILEVER
BR - BRIDGE MOUNTED
WP - WOOD POST
TS - TELESCOPING STEEL
BS - BREAKAWAY STEEL
LP - LIGHT POLE
TC - TRAFFIC SIGNAL
MP - METAL POLE
EX - RELOCATED

ROADWAY

MAN - MANNHEIM ROAD
HG - HIGGINS ROAD (IL72)
ZK - ZEMKE BOULEVARD
BC - BESSIE COLEMAN DRIVE
190 - RAMP

NB-M-LP-1
MUTCD R2-1
STA. XX+00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING & SIGNING PLAN
MANNHEIM ROAD

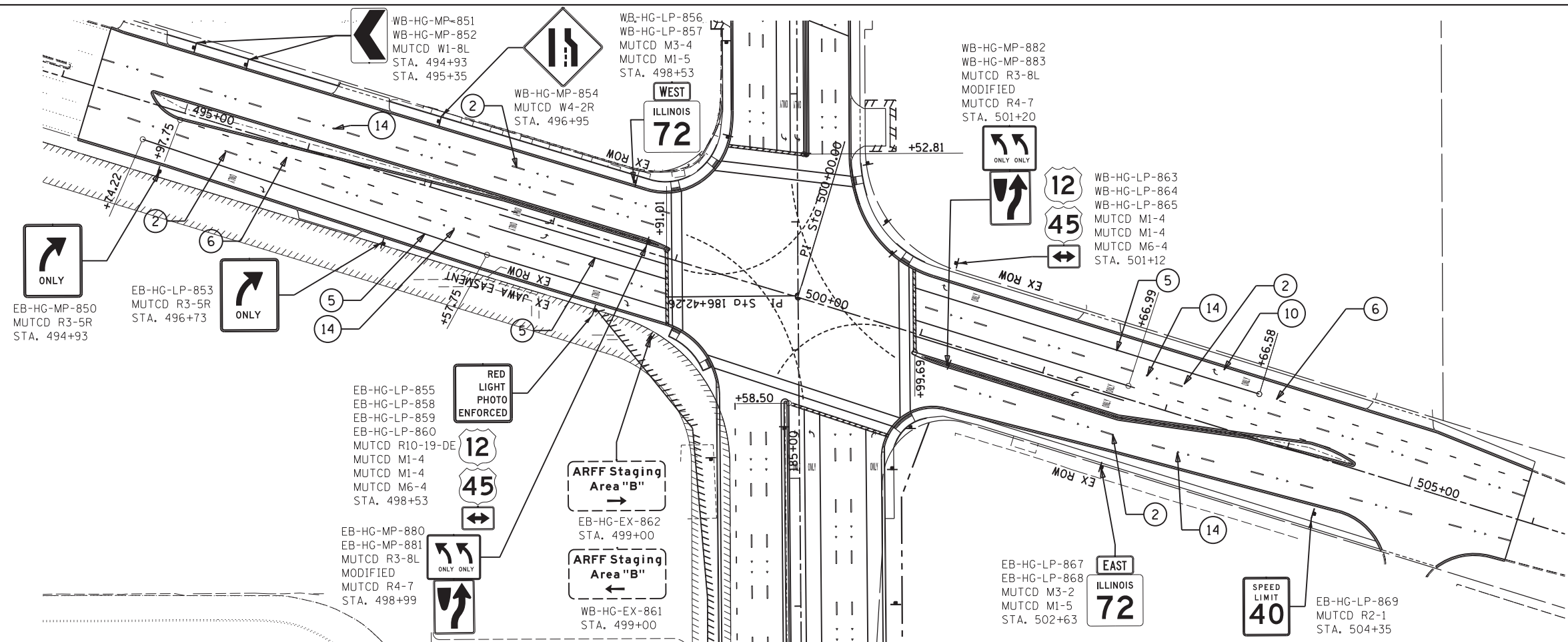
SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 180+00.00 TO STA. 196+15.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	209
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

Globetrotters
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, IL 60606

USER NAME = stephen.schuh	DESIGNED MT	REVISED -
PLOT SCALE = 50.0000' / in.	DRAWN MT	REVISED -
PLOT DATE = 10/19/2012	CHECKED VT	REVISED -
	DATE 10/19/2012	REVISED -

FILE NAME = c:\cadd\lib\pw\sschuh\pgr\great.lakes\dms47849\0160P35-sht-plan.pmk5.dgn



- ① POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- ② POLYUREA PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
- ③ POLYUREA PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
- ④ POLYUREA PAVEMENT MARKING - LINE 4" YELLOW DOUBLE CENTER LINE
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- ⑪ POLYUREA PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
- ⑫ POLYUREA PAVEMENT MARKING - LINE 6" WHITE 3' DASH, 9' SKIP
- ⑬ POLYUREA PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
- ⑭ RAISED REFLECTIVE PAVEMENT MARKING
- ⑮ RAISED REFLECTIVE PAVEMENT MARKING (BRIDGE)

EB - MAN - TR - 10		SIGN PANEL NUMBER	MOUNTING TYPE	NB-M-LP-1 MUTCD R2-1 STA. XX+00
DIRECTION OF TRAFFIC				
EB - EASTBOUND	WB - WESTBOUND			
NB - NORTHBOUND	SB - SOUTHBOUND			
ROADWAY				
MAN - MANNHEIM ROAD	HC - HIGGINS ROAD (IL72)			
ZK - ZEMKE BOULEVARD	190 - RAMP			
		TR - TRUSS		
		CL - CANTILEVER		
		BR - BRIDGE MOUNTED		
		WP - WOOD POST		
		TS - TELESCOPING STEEL		
		BS - BREAKAWAY STEEL		
		LP - LIGHT POLE		
		TC - TRAFFIC SIGNAL		
		MP - METAL POLE		
		EX - RELOCATED		

CONTRACT 60P35
SIGNING SCHEDULE

SIGN NO.	STATION	LEGEND / DESCRIPTION	MUTCD	EXISTING PANEL DIMENSIONS		PROPOSED PANEL DIMENSIONS		REMOVE SIGN PANEL - TYPE A	REMOVE SIGN PANEL - TYPE B	REMOVE SIGN PANEL - TYPE 1	REMOVE SIGN PANEL - TYPE 2	REMOVE SIGN PANEL - TYPE 3	SIGN PANEL - TYPE 1	SIGN PANEL - TYPE 2	SIGN PANEL - TYPE 3	RELOCATE SIGN PANEL - TYPE 1	RELOCATE SIGN PANEL - TYPE 2	RELOCATE SIGN PANEL - TYPE 3	METAL POST - TYPE A	METAL POST - TYPE B	WOOD SIGN POST
				WIDTH (FT)	HEIGHT (FT)	WIDTH (FT)	HEIGHT (FT)	(EACH)	(EACH)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(FOOT)
SB-BC-LP-700	11+35.00	No Stopping, Standing, Parking ←→ Tow Away Zone	R8-5	1.5	2.0	2.0	2.5			3.0			5.0								
***NB-BC-EX-701	11+40.00	Econ Lot F, I-190, 90 & 294 Mannheim North/South		13.0	11.0	13.0	11.0				0.0	143.0		0.0	143.0						
NB-BC-LP-702	10+61.00	No Stopping, Standing, Parking ←→ Tow Away Zone	R8-5	1.5	2.0	2.0	2.5	1.0		3.0			5.0								
NB-BC-MP-703		Movement Prohibition (No U Turn)	R3-4	2.0	2.0					4.0									12		
SB-BC-LP-704	8+94.00	No Stopping, Standing, Parking ←→ Tow Away Zone	R8-5	1.5	2.0	2.0	2.5			3.0			5.0								
NB-BC-LP-705	9+37.00	No Stopping, Standing, Parking ←→ Tow Away Zone	R8-5	1.5	2.0	2.0	2.5			3.0			5.0								24
***WB-BC-MP-706	8+20.00	Term 5-Econ Park E-Park Kiss 'n' Fly-Rental Car Return ←		13.0	6.5	15.2	8.9				0.0	84.5		0.0	135.3						
WB-BC-EX-707	8+20.00	ARFF Staging Area "B"		6.0	4.0							24.0	0.0				24.0				
NB-BC-NB-708	8+20.00	Do Not Enter	R5-1	2.0	2.0					4.0			0.0								
SB-BC-MP-709	8+20.00	No Left Turn (Arrow)	R3-2	2.0	2.5					5.0			0.0								
SB-BC-MP-710	7+73.00	Stop Sign	R1-1	2.0	2.0	3.0	3.0			4.0				9.0					12		
NB-ZK-MP-711	50+55.00	Movement Prohibition (No U Turn)	R3-4	2.0	2.0					4.0									12		
SB-ZK-EX-712		Signature Flight School								0.0					7.5						
SB-ZK-MP-713	50+55.00	(Interstate)	M6-3	1.8	1.3	1.8	1.3			2.2										20	
WB-ZK-MP-714	51+39.00	Arrow		1.8	1.3	1.8	1.3			2.2			2.3								
WB-ZK-EX-715	51+39.00	Signature Flight Support		2.5	3.0					7.5			0.0			7.5					
***NB-ZK-MP-716	52+05.00	Econ Lot F Cell Lot Mannheim North/South		11.0	9.0	12.0	8.1					99.0			97.2						
WB-ZK-LP-717	61+68.00	Cardinal Direction - West (Interstate)	M3-4	2.0	1.0	2.0	1.0			2.0			2.0								
WB-ZK-LP-718	61+68.00	Toll	M4-5	1.8	0.8	1.8	0.8			1.3			1.3								
WB-ZK-LP-719	61+68.00	I-90	M1-1	2.0	2.0	2.0	2.0			4.0			4.0								
WB-ZK-LP-720	61+68.00	Arrow (Interstate)	M6-1	1.8	0.8	1.8	1.3			1.3			2.3								
***EB-ZK-MP-721	61+91.00	See Picture (Blue) EB	D9-18a	8.0	5.0	8.2	6.3					40.0		0.0	51.7						
WB-ZK-LP-722	62+57.00	To (Interstate)	M4-5	1.8	1.3	1.8	0.8			2.2			1.4								
WB-ZK-LP-723	62+57.00	Cardinal Direction - East (Interstate)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0								
WB-ZK-LP-724	62+57.00	I-90	M1-1	2.0	2.0	2.0	2.0			4.0			4.0								
WB-ZK-LP-725	62+57.00	I-294	M1-1	3.0	3.0	3.0	3.0				9.0			9.0							
WB-ZK-LP-726	62+57.00	Arrow (Interstate)	M6-1L	1.8	1.3	1.8	1.3			2.2			2.2								
EB-ZK-MP-727	62+77.00	O'Hare International Airport - Left Arrow	D9-18a	3.0	4.0	3.0	4.0				12.0			12.0							
*NB-RA-CL-728	602+33.00	I-190 WEST O'Hare W/Arrow	D13-3a	14.0	9.0	14.0	9.0					126.0			126.0						
NB-MAN-LP-729	124+47.00	Advisory Exit or Ramp Speed (Ramp 25 MPH)	W13-7	3.0	4.0	3.0	4.0				12.0			12.0							
***SB-MAN-EX-730	125+20.00	To I-90 I-294 Tollway NEXT RIGHT		12.0	9.0							108.0	0.0				108.0				
NB-MAN-LP-731	125+85.00	Use Prohibited	R5-10a	5.0	4.0	5.0	4.0				20.0			20.0							
NB-MAN-MP-732	126+15.00	I-190 West (Interstate) ARROW	D13-3a	2.0	1.0	3.5	4.0			2.0									12		
NB-MAN-MP-733	166+16.00	RIGHT LANE MUST TURN RIGHT	R3-7	2.0	2.0	2.5	3.0			4.0			7.5						12		
WB-ZK-LP-734	20+00.00	INTERSTATE I-190 SHEILD	M1-1	1.3	1.8					2.2			0.0								
SB-MAN-LP-735	126+85.00	D.M.S.																			
NB-MAN-LP-736	129+17.00	Cardinal Direction - West (Route)	M3-4	2.0	2.0					4.0			0.0								
NB-MAN-LP-737	129+17.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
NB-MAN-LP-738	129+17.00	Cardinal Direction - North (Route)	M3-1	2.0	1.0	2.0	1.0			2.0			2.0						20		
NB-MAN-LP-739	129+17.00	U.S. Route Sign 45	M1-4	2.0	1.0	2.0	2.0			2.0			4.0								
***SB-MAN-EX-740	131+25.00	Air Cargo Guard Post 11		9.0	6.5	7.8	5.9					58.5			45.7						
NB-MAN-LP-741	132+20.00	Merge (Right)	W4-1R	3.0	3.0	3.0	3.0				9.0			9.0							
SB-MAN-MP-742	132+95.00	I-190 West (Interstate) ARROW	D13-3a	2.0	1.0	3.5	4.0			2.0											
SB-MAN-MP-743	132+95.00	Interstate Sign - I-190	M1-1	2.0	2.0					4.0											
SB-MAN-MP-744	132+95.00	Arrow(Interstate)	M6-2	1.5	1.3					1.9											
SB-MAN-LP-745	134+05.00	Use Prohibited	R5-10a	5.0	4.0	5.0	4.0				20.0			20.0							
SB-MAN-LP-xx746	130+00.00	I-190 EAST Chicago NEXT RIGHT	D9-18	14.0	9.0						0.0		0.0								
SB-MAN-LP-xx747	135+40.00	I-190 WEST O'Hare W/Arrow	D9-18	12.0	7.5						0.0		0.0								
NB-MAN-LP-748	140+17.00	Cardinal Direction - West (Route)	M3-4	2.0	2.0	2.0	1.0			4.0			2.0								
NB-MAN-LP-749	140+17.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
NB-MAN-LP-750	140+17.00	Cardinal Direction - North (Route)	M3-1	2.0	1.0	2.0	1.0			2.0			2.0								
NB-MAN-LP-751	140+17.00	U.S. Route Sign 45	M1-4	2.0	1.0	2.0	2.0			2.0			4.0								
SB-MAN-MP-752	141+40.00	Speed Limit 50	R2-1	2.5	3.0	2.5	3.0			7.5			7.5						12		
***NB-MAN-MP-753	142+65.00	(Information Sign) Rental Lot.)	D9-18	12.0	6.0	13.2	4.6					72.0			60.7						
NB-MAN-MP-754	143+40.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0				12.0			12.0					12		
***SB-MAN-EX-755	144+25.00	Direction (To I-190)	D9-18	11.0	9.0	11.0	9.0					99.0			99.0						
NB-MAN-EX-756	144+45.00	No Dumping								0.0			0.0								
SB-MAN-LP-757	149+00.00	Cardinal Direction - East (Route)	M3-2	2.0	2.0	2.0	1.0			4.0			2.0								
SB-MAN-LP-758	149+00.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
SB-MAN-LP-759	149+00.00	Cardinal Direction - South (Route)	M3-3	2.0	1.0	2.0	1.0			2.0			2.0								
SB-MAN-LP-760	149+00.00	U.S. Route Sign 45	M1-4	2.0	1.0	2.0	2.0			2.0			4.0								
***NB-MAN-MP-761	152+35.00	(Information Sign) Cell Phone Lot.)		12.0	6.0	8.4	4.5					72.0		0.0	37.8						
NB-MAN-MP-762	153+40.00	Speed Limit 40	R2-1	3.0	4.0	3.0	4.0				12.0			12.0						20	
SB-MAN-MP-763	153+40.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0				12.0			12.0							
NB-MAN-MP-764	153+40.00	Speed Limit 40	R2-1	2.5	3.0	2.5	3.0			7.5			7.5							20	
SB-MAN-MP-765	153+40.00	Speed Limit 50	R2-1	2.5	3.0	2.5	3.0			7.5			7.5								
***SB-MAN-EX-766	158+65.00	E-190, O'Hare Chicago JCT 1/2 Mile		12.0	11.5							138.0	0.0		138.0						
***NB-MAN-MP-767	159+65.00	Information Blue		13.0	6.0	13.3	6.6					78.0			87.8						
SB-MAN-MP-768	163+40.00	Speed Limit 40	R2-1	2.5	3.0	2.5	3.0			7.5			7.5						12		
SB-MAN-LP-769	164+40.00	Speed Limit 40																			

CONTRACT 60P35
SIGNING SCHEDULE

SIGN NO.	STATION	LEGEND / DESCRIPTION	MUTCD	EXISTING PANEL DIMENSIONS		PROPOSED PANEL DIMENSIONS		REMOVE SIGN PANEL - TYPE A	REMOVE SIGN PANEL - TYPE B	REMOVE SIGN PANEL - TYPE 1	REMOVE SIGN PANEL - TYPE 2	REMOVE SIGN PANEL - TYPE 3	SIGN PANEL - TYPE 1	SIGN PANEL - TYPE 2	SIGN PANEL - TYPE 3	RELOCATE SIGN PANEL - TYPE 1	RELOCATE SIGN PANEL - TYPE 2	RELOCATE SIGN PANEL - TYPE 3	METAL POST - TYPE A	METAL POST - TYPE B	WOOD SIGN POST
				WIDTH (FT)	HEIGHT (FT)	WIDTH (FT)	HEIGHT (FT)	(EACH)	(EACH)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(FOOT)
SB-MAN-LP-773	171+64.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
SB-MAN-LP-774	171+64.00	Cardinal Direction - South (Route)	M3-3	2.0	1.0	2.0	1.0			2.0			2.0								
SB-MAN-LP-775	171+64.00	U.S. Route Sign 45	M1-4	2.0	1.0	2.0	2.0			2.0			4.0								
NB-MAN-MP-776	171+45.00	Advanced Intersection Lane Control (Modified)	R3-8	2.5	2.5	2.5	2.5			6.3			6.3						12		
SB-MAN-LP-777	173+00.00	Pace Bus Stop		1.5	1.5					2.3											
***SB-MAN-MP-778	173+85.00	(Information Sign) Parking Lot.)		13.0	6.0	12.0	5.5						78.0				66.0				
***NB-MAN-MP-779	173+85.00	(Information Sign) Parking Lot.)		13.0	6.0	12.0	5.5						78.0				66.0				
SB-MAN-LP-780	175+35.00	Pace Bus Stop		1.5	1.5					2.3											
SB-MAN-EX-781	175+35.00	ARFF Staging Area "B"		6.0	4.0	6.0	4.0						24.0					24.0			24
***SB-MAN-EX-782	175+55.00	Terminal 5- Rental Car Return - Park E,G - Lot --->		13.0	8.0	11.5	8.1						104.0				93.2				
NB-MAN-LP-783	177+15.00	Speed Limit 40	R2-1	2.5	3.0	2.5	3.0			7.5			7.5								
SB-MAN-LP-784	177+15.00	Speed Limit 40	R2-1	2.5	3.0	2.5	3.0			7.5			7.5								
NB-MAN-LP-785	179+23.00	Junction	M2-1	2.5	1.3	2.5	1.3			3.1			3.1								
NB-MAN-LP-786	179+23.00	Illinois 72	M1-5	3.0	3.0	3.0	3.0				9.0			9.0							
NB-MAN-LP-787	179+23.00	Advanced street name (Higgins Rd)	W16-8P	2.5	0.8	2.5	0.8			1.9			1.9								
***SB-MAN-MP-788	179+60.00	Economy Parking F - Auto Pound - Cell Phone Lot		13.0	6.0	12.0	5.5						78.0			0.0	66.0				
NB-MAN-LP-789	179+60.00	Pace Bus Stop		1.5	1.5					2.3											
NB-MAN-LP-790	179+65.00	No Thru Traffic	R10-9	2.0	2.0	2.0	2.0			4.0			4.0								
NB-MAN-MP-791	180+20.00	No Left Turn	R3-2	2.5	2.5	3.0	3.0			6.3				9.0					12		
NB-MAN-LP-792	181+23.00	Casino (Right)	D9-10	2.0	2.0	2.0	2.0			4.0			4.0								
SB-MAN-MP-793	181+23.00	Chevron Left	W1-8L	2.5	3.0					7.5			0.0						12		
SB-MAN-LP-794	181+45.00	Chevron Left	W1-8L	2.5	3.0					7.5			0.0								
SB-MAN-LP-795	181+90.00	Chevron Left	W1-8L	2.5	3.0					7.5			0.0								
SB-MAN-LP-796	182+50.00	Merge (Right)	W4-2R	3.0	3.0	3.0	3.0				9.0			9.0							
NB-MAN-LP-797	183+23.00	Red Light Photo Enforced	R10-19	2.0	2.0	2.0	3.0			4.0			6.0								
NB-MAN-LP-798	183+23.00	Right Turn Lane	R10-11b	3.0	3.0	3.0	3.0				9.0			9.0							
NB-MAN-MP-799	184+15.00	Right turn Only (arrow)	R3-5R	2.0	2.5	2.5	3.0			5.0			7.5						12		
SB-MAN-LP-800	183+23.00	Cardinal Direction - East (Route)	M3-2	2.0	2.0	2.0	1.0			4.0			2.0								
SB-MAN-LP-801	183+23.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
SB-MAN-LP-802	183+23.00	Cardinal Direction - South (Route)	M3-3	2.0	1.0	2.0	1.0			2.0			2.0								
SB-MAN-LP-803	183+23.00	U.S. Route Sign 45	M1-4	2.0	1.0	2.0	2.0			2.0			4.0								
NB-MAN-LP-804	185+07.00	Directional Arrow (Both Ways)	M6-4	1.8	1.3	1.8	1.3			2.2			2.2								
NB-MAN-LP-805	185+07.00	Illinois 72	M1-5	2.0	2.0	2.0	2.0			4.0			4.0								
SB-MAN-MP-806	185+15.00	No Turn on Red	R10-11b	2.0	2.0	3.0	3.0			4.0				9.0					12		
NB-MAN-LP-807	185+07.00	No Turn on Red	R10-11b	2.0	2.0	3.0	3.0	1.0		4.0				9.0							
SB-MAN-MP-808	185+40.00	left turn Only (arrow)	R3-8L	2.0	2.5	2.5	3.0			5.0			7.5						10		
SB-MAN-MP-809	185+40.00	Keep Right (Median)	R4-7	2.0	2.5	2.0	2.5			5.0			5.0								
NB-MAN-TC-810	186+00.00	No Turn on Red	R10-11b	2.0	2.0					4.0			0.0								
NB-MAN-TC-811	186+00.00	left turn Only (arrow)	R3-8L	2.5	3.0					7.5			0.0								
SB-MAN-LP-812	185+95.00	No Turn on Red	R10-11b	2.0	2.0	3.0	3.0			4.0				9.0							
SB-MAN-MP-813	186+20.00	left turn Only (arrow)	R3-8L	2.0	2.5	2.5	3.0			5.0			7.5								
SB-MAN-MP-814	186+20.00	Keep Right (Median)	R4-7	2.0	2.5	2.0	2.5	1.0		5.0			5.0								
SB-MAN-MP-815	186+85.00	Keep Right (Median)	R4-7	2.5	3.0	2.0	2.5	1.0		7.5			5.0							10	
NB-MAN-LP-816	186+90.00	left turn on Green arrow Only	R10-5	2.5	3.0	2.5	3.0			7.5			7.5								
NB-MAN-LP-817	186+90.00	No Turn on Red	R10-11b	2.0	2.0	3.0	3.0			4.0				9.0							
NB-MAN-LP-818	187+46.00	Red Light Photo Enforced	R10-19	3.0	3.0	2.0	3.0				9.0			6.0							
NB-MAN-LP-819	187+46.00	No Turn on Red	R10-11b	2.0	2.0	3.0	3.0			4.0				9.0							
SB-MAN-MP-820	187+40.00	left turn Only (arrow)	R3-5L	2.0	2.5	2.5	3.0	1.0		5.0			7.5							12	
SB-MAN-MP-821	188+20.00	No Left Turn (arrow)	R3-2	2.5	1.3					3.1											
SB-MAN-MP-822	188+20.00	Into Driveway		2.5	2.5					6.3											
SB-MAN-LP-823	187+67.00	No Turn on Red	R10-11b	2.0	2.0	3.0	3.0			4.0				9.0							
NB-MAN-LP-824	187+46.00	Cardinal Direction - West (Route)	M3-4	2.0	1.0	2.0	1.0			2.0			2.0								
NB-MAN-LP-825	187+46.00	U.S. Route Sign 12	M1-4	2.0	1.0	2.0	2.0			2.0			4.0								
NB-MAN-LP-826	187+46.00	Cardinal Direction - North (Route)	M3-1	2.0	2.0	2.0	1.0			4.0			2.0								
NB-MAN-LP-827	187+46.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
NB-MAN-MP-828	188+50.00	Merge (Right)	W4-2R	1.5	1.5	3.0	3.0			2.3				9.0					12		
SB-MAN-MP-829	188+55.00	No Turn on Red	R10-11b	2.0	2.0	3.0	3.0	1.0		4.0				9.0						10	
SB-MAN-LP-830	189+02.00	Directional Arrow (Both Ways)	M6-4	1.8	1.3	1.8	1.3			2.2			2.2								
SB-MAN-LP-831	189+02.00	Illinois 72	M1-5	2.0	2.0	2.0	2.0			4.0			4.0								
NB-MAN-MP-832	190+80.00	Chevron Left	W1-8L	2.0	2.5	2.0	2.5			5.0			5.0							12	
NB-MAN-MP-833		Pace Bus Stop		1.5	1.5					2.3											
NB-MAN-MP-834	191+80.00	Chevron Left	W1-8L	2.0	2.5	2.0	2.5			5.0			5.0							12	
SB-MAN-MP-835		Pace Bus Stop		1.5	1.5			1.0		2.3											
NB-MAN-MP-836	192+80.00	Chevron Left	W1-8L	2.0	2.5	2.0	2.5		1.0	5.0			5.0							12	
NB-MAN-LP-837	193+20.00	Speed Limit 40	R2-1	2.5	3.0	2.5	3.0			7.5			7.5								
SB-MAN-MP-838	193+50.00	Right turn Only (arrow)	R3-5R	2.0	2.5	2.5	3.0	1.0		5.0			7.5							12	
SB-MAN-LP-839	194+83.00	Junction	M2-1	0.8	2.5	1.3	1.8			1.9			2.2								
SB-MAN-LP-840	194+83.00	Illinois 72	M1-5	3.0	3.0	3.0	3.0				9.0			9.0							
SB-MAN-LP-841	194+83.00	Advanced street name (Higgins Rd)	W16-8P	1.3	2.5	2.5	0.8			3.1			2.0								
EB-HG-LP-842	492+40.00	Junction	M2-1	2.0	1.0	2.0	1.0			2.0			2.0								
EB-HG-LP-843	492+40.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
EB-HG-LP-844	492+40.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
EB-HG-LP-845	492+40.00	Advanced street name (Mannheim Rd)	W16-8P	1.3	1.8	1.3	1.8			2.2			2.2								



USER NAME = stephen.schuh	DESIGNED	REVISED -
	DRAWN	REVISED -
PLOT SCALE = 10.0000' / 1"	CHECKED	REVISED -
PLOT DATE = 10/19/2012	DATE 10/19/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SIGN SCHEDULE OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	212
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

FILE NAME = c:\cadd\lib\pws\schuh\pgr\greet.lakes\dms47849\0160P35-sht-sign-schedule.02.dgn

CONTRACT 60P35
SIGNING SCHEDULE

SIGN NO.	STATION	LEGEND / DESCRIPTION	MUTCD	EXISTING PANEL DIMENSIONS		PROPOSED PANEL DIMENSIONS		REMOVE SIGN PANEL - TYPE A	REMOVE SIGN PANEL - TYPE B	REMOVE SIGN PANEL - TYPE 1	REMOVE SIGN PANEL - TYPE 2	REMOVE SIGN PANEL - TYPE 3	SIGN PANEL - TYPE 1	SIGN PANEL - TYPE 2	SIGN PANEL - TYPE 3	RELOCATE SIGN PANEL - TYPE 1	RELOCATE SIGN PANEL - TYPE 2	RELOCATE SIGN PANEL - TYPE 3	METAL POST - TYPE A	METAL POST - TYPE B	WOOD SIGN POST
				WIDTH (FT)	HEIGHT (FT)	WIDTH (FT)	HEIGHT (FT)	(EACH)	(EACH)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(SQ FT)	(FOOT)
WB-HG-MP-846	493+45.00	Keep Right (Median)	R4-7	2.0	2.5	2.0	2.5			5.0			5.0						10		
WB-HG-MP-847	494+00.00	Keep Right (Median)	R4-7	2.0	2.5	2.0	2.5			5.0			5.0						10		
WB-HG-MP-848	494+00.00	left turn Only (arrow)	R3-5L	2.0	2.5	2.0	2.5			5.0			5.0						12		
WB-HG-MP-849	494+20.00	Chevron Left	W1-8L	2.0	2.5	2.0	2.5			5.0			5.0						12		
EB-HG-LP-850	494+93.00	Right turn Only (arrow)	R3-5R	2.0	2.5	2.5	3.0			5.0			7.5						12		
WB-HG-MP-851	494+93.00	Chevron Left	W1-8L	2.0	2.5	2.0	2.5			5.0			5.0						12		
WB-HG-MP-852	495+35.00	Chevron Left	W1-8L	2.0	2.5	2.0	2.5			5.0			5.0						12		
EB-HG-LP-853	496+73.00	Right turn Only (arrow)	R3-5R	2.5	2.5	2.5	3.0			6.3			7.5								
WB-HG-MP-854	496+95.00	Right Lane Ends	W4-2R	3.0	3.0	3.0	3.0				9.0			9.0					12		
EB-HG-MP-855	497+90.00	Red Light Photo Enforced	R10-19-DE	3.0	3.0	3.0	3.0	1.0			9.0			9.0					12		
WB-HG-LP-856	498+53.00	Cardinal Direction - West (Route)	M3-4	2.0	1.0	2.0	1.0			2.0			2.0								
WB-HG-LP-857	498+53.00	Illinois 72	M1-5	2.0	2.0	2.0	2.0	1.0		4.0			4.0							20	
EB-HG-LP-858	498+53.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
EB-HG-LP-859	498+53.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
EB-HG-LP-860	498+53.00	Directional Arrow (Both Ways)	M6-4	1.3	1.8	1.3	1.8			2.2			2.2								
WB-HG-EX-861	499+00.00	ARFF Staging Area "B" Right Arrow	D9-18a	6.0	4.0							24.0	0.0					24.0			24
EB-HG-EX-862	499+00.00	ARFF Staging Area "B" Right Arrow	D9-18a	6.0	4.0							24.0	0.0					24.0			24
WB-HG-LP-863	501+12.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
WB-HG-LP-864	501+12.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
WB-HG-LP-865	501+12.00	Directional Arrow (Both Ways)	M6-4	1.8	1.3	1.8	1.3			2.2			2.2								
WB-HG-MP-866	501+20.00	Pace Bus Stop		1.5	1.5	1.5	1.5			2.3			2.3								
EB-HG-LP-867	502+63.00	Cardinal Direction - East (Route)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0								
EB-HG-LP-868	502+63.00	Illinois 72	M1-5	2.0	2.0	2.0	2.0			4.0			4.0								
EB-HG-LP-869	504+35.00	Speed Limit 40	R2-1	2.5	3.0	2.5	3.0			7.5			7.5								
WB-HG-MP-870	507+40.00	Junction	M2-1	2.0	1.0	2.0	1.0			2.0			2.0								
WB-HG-MP-871	507+40.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0								
WB-HG-MP-872	507+40.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							20	
WB-HG-MP-873	507+40.00	Advanced street name (Mannheim Rd)	W16-8P	1.3	1.8	1.3	1.8			2.2			2.2						12		
EB-HG-LP-874	507+45.00	Watch for Water/Ice on Road		3.0	3.0	3.0	3.0		1.0		9.0			9.0					12		
WB-HG-MP-875	696+10.00	Keep Right (Median)	R4-7	2.0	2.5	2.0	2.5			5.0			5.0								
NB-MAN-MP-876	151+30.00	Movement Prohibition (No U Turn)	R3-4			2.0	2.0						4.0						6		
NB-MAN-MP-877	151+30.00	EXCEPT AUTHORIZED VEHICLES	R3-1I01			3.0	2.0						6.0								
SB-MAN-MP-878	151+30.00	Movement Prohibition (No U Turn)	R3-4			3.0	3.0							9.0							
SB-MAN-MP-879	151+30.00	EXCEPT AUTHORIZED VEHICLES	R3-1I01			3.0	2.0						6.0								
EB-HG-MP-880	498+99.00	left turn Only (arrow)	R3-5L			2.5	3.0						7.5						8		
EB-HG-MP-881	498+99.00	Keep Right (Median)	R4-7			2.0	2.5						5.0								
WB-HG-MP-882	501+20.00	left turn Only (arrow)	R3-5L			2.5	3.0						7.5						8		
WB-HG-MP-883	501+20.00	Keep Right (Median)	R4-7			2.0	2.5						5.0								
SB-MAN-LP-884	177+15.00	Right turn arrow	R3-5R			2.5	3.0						7.5						12		
SB-MAN-LP-885	181+23.00	Right lane must turn right	R3-7			2.5	3.0						7.5						12		
SB-MAN-MP-886	121+67.00	Added Lane	W4-3			3.0	3.0							9.0					12		
Totals								9.0	5.0	528.9	190.0	1576.0	481.8	289.0	1175.3	15.0	0.0	366.0	444	120	120.0



USER NAME = stephen.schuh
DESIGNED
DRAWN
PLOT SCALE = 10.0000' / in.
CHECKED
PLOT DATE = 10/19/2012
DATE

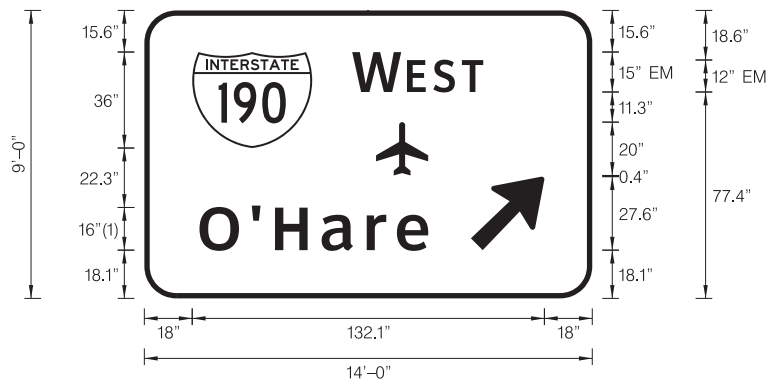
DESIGNED
DRAWN
CHECKED
DATE 10/19/12
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	213
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



SIGN NUMBER	CN-02
WIDTH x HGHT.	14'-0" x 9'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	18	56.4	45	36
6-53	0	86.9	46.1	19.6	20
ARMED	45	122.5	18.1	22.5	35.5

Panel Style: guide_exp_advance_a.ssi
 Dimensions are in Inches.tenths

FONT:
 (1) ClearviewHwy-5-W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIES-SIZE	
W	E	S	T												EM 2000
78	96.1	107.1	118.6												49.6
O	'	H	a	r	e										ClearviewHwy-5-W
20.7	40.3	49	66.5	83.4	94.7										85.8

SGN-PD-01



USER NAME = mkosir	DESIGNED DJJ	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 3:1	CHECKED LLS	REVISED -
PLOT DATE = 08-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
 SIGN PANEL DETAILS

SCALE: N.T.S. SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	214
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



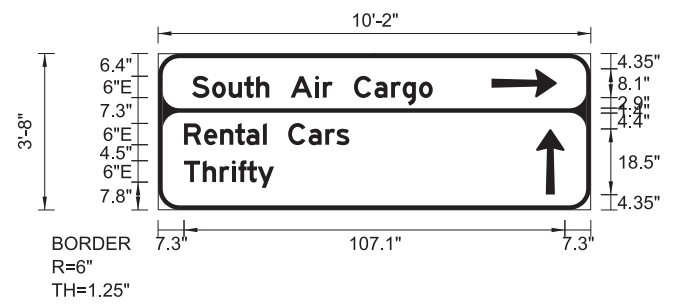
SIGN NUMBER	214
WIDTH x HGHT.	11'-2" x 6'-3"
BORDER WIDTH	1.5"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Blue
LEGEND/BORDER	TYPE: Reflective COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A - Extended	90	57.7	5.6	8.1	18.5

Panel Style: DOA GENRAL.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																LENGTH	SERIES/SIZE				
A	i	r	p	o	r	t											E 2000				
48.7	57.9	60.8	65.3	71.2	77.6	81.5											36.5	86			
M	a	l	n	t	e	n	a	n	c	e	C	o	m	p	l	e	x	E 2000			
9.6	18.6	24.8	27.7	33.4	37.6	43.6	49.6	55.8	61.9	67.6	72.6	80.6	88.3	94.6	104.3	110.5	113.1	118.4	114.7	86	
E	a	s	t		A	i	r		C	a	r	g	o					E 2000			
25.4	32.4	38.2	43.4	47.1	55.1	64.3	67.2	70.9	78.9	86.6	92.8	97.1	103.3							83	86
G	u	a	r	d		P	o	s	t		1	1						E 2000			
29.8	37.7	43.8	50	54.4	59.3	67.3	74.6	80.5	85.7	89.4	97.4	101.6								74.3	86



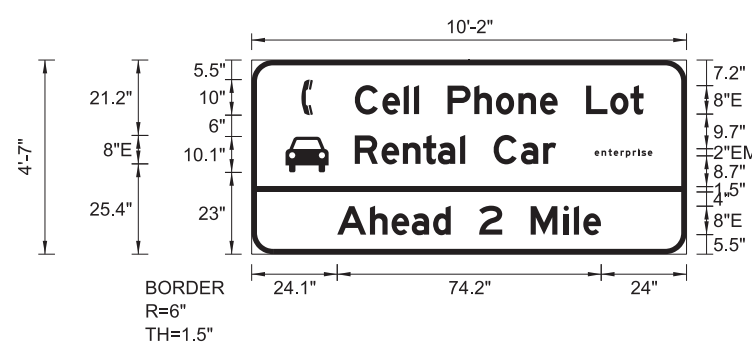
SIGN NUMBER	197
WIDTH x HGHT.	10'-2" x 3'-9"
BORDER WIDTH	1.25"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Blue /Blue
LEGEND/BORDER	TYPE: Reflective COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A - Extended	270	93.7	31.6	8.1	18.5
AR_Type A - Extended	0	106.3	4.3	8.1	18.5

Panel Style: DOA GENRAL.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																LENGTH	SERIES/SIZE					
S	o	u	t	h		A	i	r		C	a	r	g	o				E 2000				
9.6	15.2	19.9	24.2	27.6	31.3	37.3	44.2	46.3	49.1	55.1	60.9	65.5	68.8	73.4				67.7	64.5			
R	e	n	t	a	l		C	a	r	s								E 2000				
7.3	12.9	17.4	21.7	24.8	29.5	30.6	36.6	42.3	47	50.1										46.5	64.5	
T	h	r	i	f	t	y												E 2000				
7.3	12.6	17.3	20.7	22.6	25.1	28															25.4	64.5



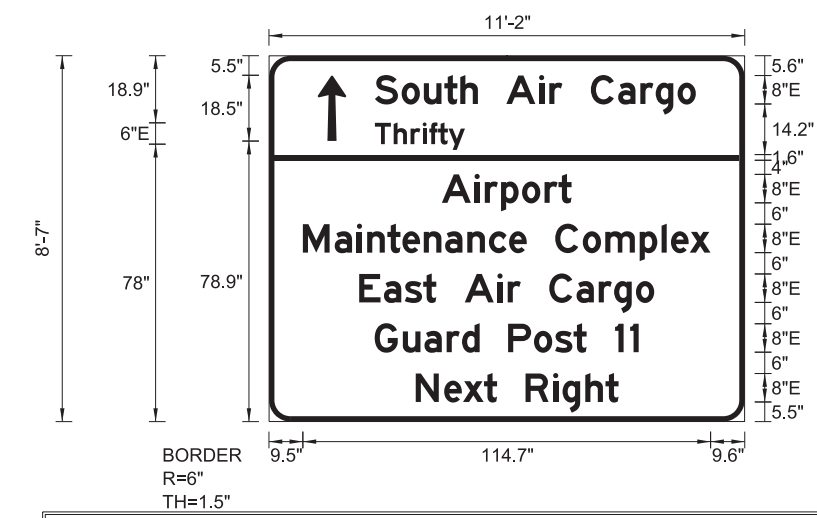
SIGN NUMBER	300
WIDTH x HGHT.	10'-2" x 4'-7"
BORDER WIDTH	1.5"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Blue /Blue
LEGEND/BORDER	TYPE: Reflective COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
Telephone	0	14	39.1	3.2	10
Automobile (Front)	0	9.5	23	12.2	10.1

Panel Style: DOA GENRAL.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																LENGTH	SERIES/SIZE				
C	e	l	l		P	h	o	n	e		L	o	t					E 2000			
29	36.8	42.8	45.6	47.1	55.1	62.6	68.7	75	81.1	86	94	100.8	106.5					81.3	86		
e	n	t	e	r	p	r	i	s	e									EM 2000			
96.4	98.4	100.3	101.8	103.7	105.2	107.2	108.6	109.6	111.4									16.4	21.5		
R	e	n	t	a	l		C	a	r									E 2000			
29	36.5	42.5	48.2	52.4	58.6	60	68	75.7	82									56.7	86		
A	h	e	a	d		2		M	i	l	e							E 2000			
24.1	33.3	39.3	45	51	56	64	70.5	78.5	87.7	90.6	93.3									74.2	86



SIGN NUMBER	232
WIDTH x HGHT.	11'-2" x 8'-7"
BORDER WIDTH	1.5"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Blue /Blue
LEGEND/BORDER	TYPE: Reflective COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A - Extended	0	13.7	78.9	8.1	18.5

Panel Style: DOA GENRAL.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																LENGTH	SERIES/SIZE				
S	o	u	t	h		A	i	r		C	a	r	g	o				E 2000			
29.8	37.3	43.6	49.3	53.8	58.8	66.8	76	78.8	82.5	90.5	98.2	104.4	108.8	114.9				90.3	86		
T	h	r	i	f	t	y												E 2000			
29.8	35.1	39.8	43.2	45.1	47.6	50.5														25.4	64.5
A	i	r	p	o	r	t												E 2000			
48.6	57.8	60.7	65.3	71.2	77.5	81.4														36.6	86
M	a	i	n	t	e	n	a	n	c	e	C	o	m	p	l	e	x	E 2000			
9.5	18.5	24.7	27.6	33.3	37.5	43.5	49.5	55.8	61.9	67.5	72.5	80.5	88.3	94.6	104.3	110.4	113.1	118.3	114.7	86	
E	a	s	t		A	i	r		C	a	r	g	o					E 2000			
25.4	32.3	38.2	43.4	47.1	55.1	64.3	67.1	70.8	78.8	86.5	92.7	97.1	103.2							83	86
G	u	a	r	d		P	o	s	t		1	1						E 2000			
29.7	37.7	43.7	50	54.3	59.3	67.3	74.5	80.5	85.7	89.3	97.3	101.6								74.3	86
N	e	x	t		R	i	g	h	t									E 2000			
41.3	49.3	54.6	60.5	64.2	72.2	79.9	82.6	89	94.6											57.1	86



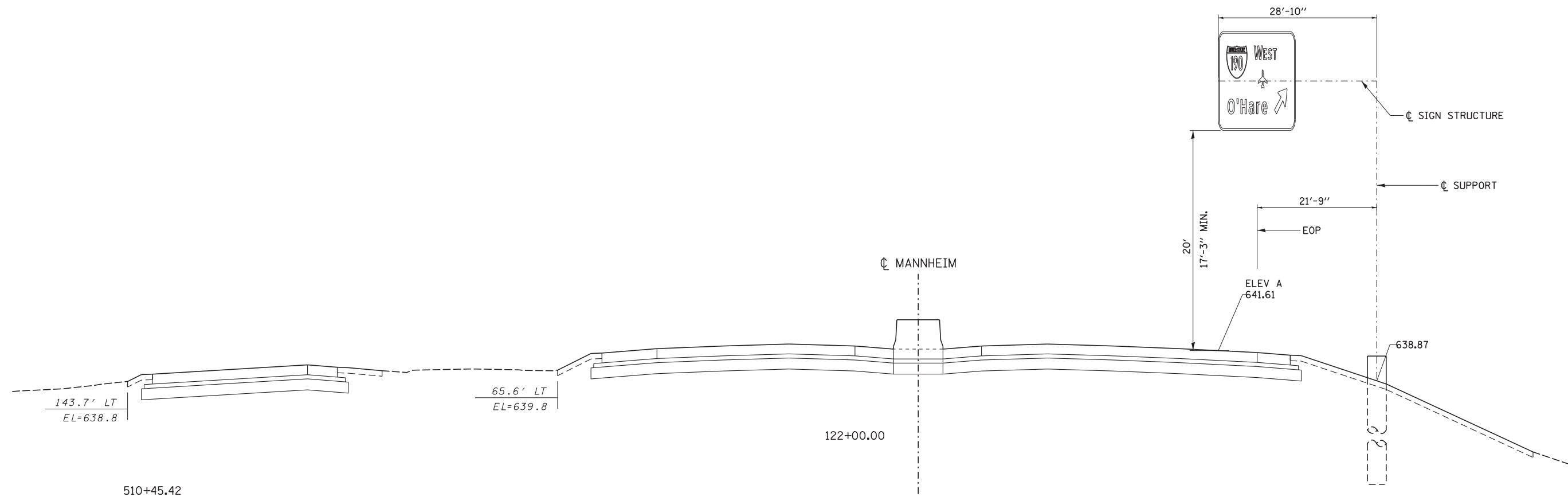
USER NAME = micosir	DESIGNED DJJ	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 3:1	CHECKED LLS	REVISED -
PLOT DATE = 08-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN PANEL DETAILS

SCALE: N.T.S. SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	215
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



MANNHEIM RD STA. 122+00.00
IDOT SIGN STRUCTURE NUMBER: 1C016U045R006.2

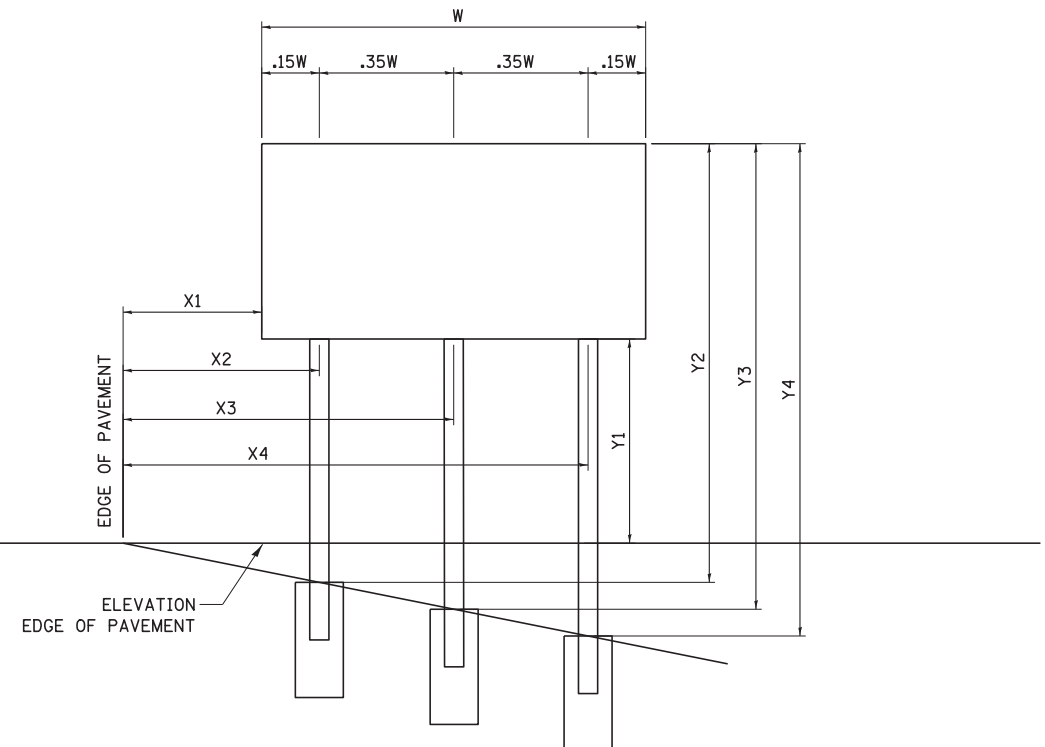
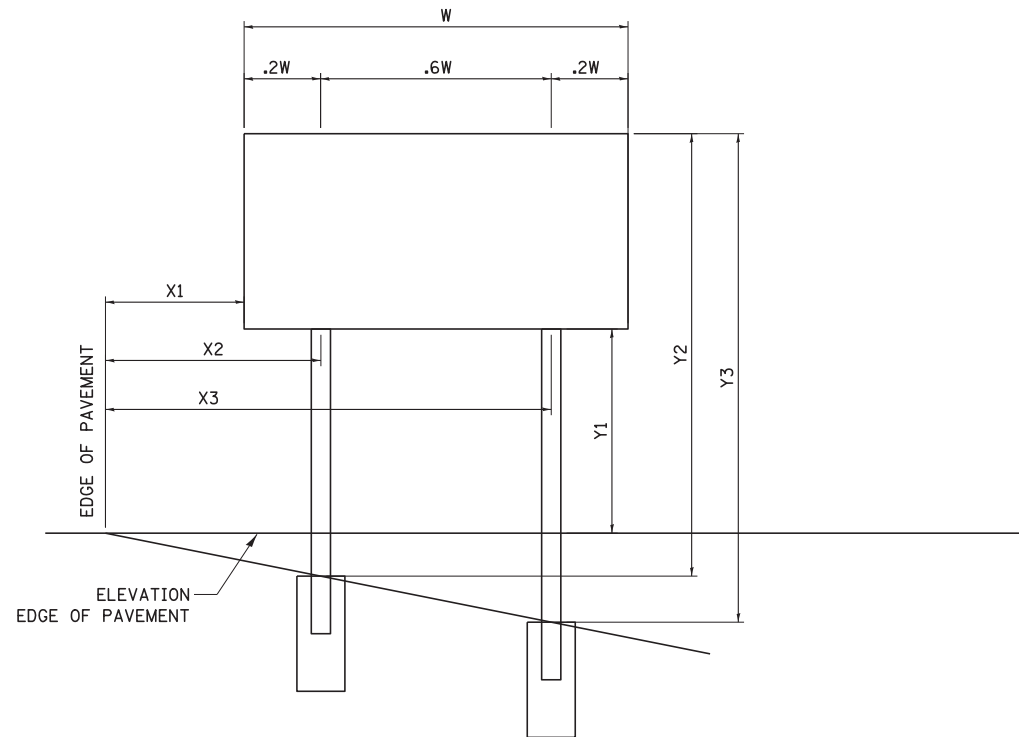
SGN-DET-01

HNTB	USER NAME = mkosir	DESIGNED LLS/MMK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES SIGN LAYOUT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/8"=1'	DRAWN MMK	REVISED -					330	0105-WRS	COOK	537	216
	PLOT DATE = 08-OCT-2012	CHECKED LLS	REVISED -		CONTRACT NO. 60P35							
	PLOT DATE = 10/19/12	DATE 10/19/12	REVISED -		SCALE: 1" = 10'	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP\dms47849\160P35-shr-sign-layout01.dgn

SIGN INSTALLATION SCHEDULE

PROPOSED LOCATION	SIGN NUMBER	SIZE		SIGN PANEL			SUPPORT												FOUNDATION	
		WIDTH FT.	HEIGHT FT.	TYPE-1 SF	TYPE-2 SF	TYPE-3 SF	X1	X2	X3	X4	Y1	Y2	Y3	Y4	NO.	POST	LENGTH FT.	WEIGHT LB	MIN. DEPTH FT	CONCRETE CY
11+40.00	NB-BC-EX-701	13.0	11.0			143.0	5.0	7.2	15.4		7.0	6.0	5.5		2.0	W8X18	37.5	831.0	6.0	1.4
08+20.00	WB-BC-MP-706	15.2	8.9			135.3	2.0	2.0	2.0		7.0	6.3	6.3		2.0	W6X15	24.0	732.0	6.0	1.4
52+05.00	NB-ZK-MP-716	12.0	8.1			97.2	2.0	4.4	11.6		7.0	6.3	6.3		2.0	W6X15	34.0	666.0	6.0	1.4
61+91.00	EB-ZK-MP-721	8.2	6.3			51.7	2.0	3.6	8.5		7.0	13.3	15.8		2.0	W6X15	29.1	417.9	6.0	1.4
125+20.00	SB-MAN-EX-730	12.0	9.0			108.0	16.0	17.6	22.2		7.0	15.0	16.0		2.0	W6X15	31.0	1064.0	6.0	2.4
131+25.00	SB-MAN-EX-740	7.8	5.9			45.7	16.0	18.4	25.6		7.0	19.5	20.5		2.0	W10X22	40.0	628.5	6.5	1.4
142+65.00	NB-MAN-MP-753	13.2	4.6			60.7	16.0	18.6	26.6		7.0	13.5	14.5		2.0	W6X15	28.0	576.0	6.0	1.4
144+25.00	SB-MAN-EX-755	11.0	9.0			99.0	16.0	18.2	24.8		7.0	16.0	17.0		2.0	W8X18	33.0	750.0	6.0	1.4
152+35.00	NB-MAN-MP-761	8.4	4.5			37.8	16.0	17.7	22.7		7.0	13.5	14.5		2.0	W6X15	28.0	576.0	6.0	1.4
158+65.00	SB-MAN-EX-766	12.0	11.5			138.0	16.0	18.4	25.6		7.0	20.0	21.0		2.0	W10X26	41.0	1262.0	7.0	3.0
159+65.00	NB-MAN-MP-767	13.3	6.6			87.8	16.0	18.7	26.6		7.0	14.5	15.5		2.0	W6X15	30.0	606.0	6.0	1.4
173+85.00	SB-MAN-MP-778	12.0	5.5			66.0	16.0	18.4	25.6		7.0	14.0	15.0		2.0	W6X15	29.0	591.0	6.0	1.4
173+85.00	NB-MAN-MP-779	12.0	5.5			66.0	16.0	18.4	25.6		7.0	14.0	15.0		2.0	W6X15	29.0	0.0	6.0	0.0
175+55.00	SB-MAN-EX-782	11.5	8.1			93.2	1.0	3.3	10.2		7.0	14.0	14.0		2.0	W6X15	28.0	576.0	6.0	1.4
179+60.00	SB-MAN-MP-788	12.0	5.5			66.0	1.0	3.4	10.6		7.0	10.0	11.0		2.0	W6X15	21.0	471.0	6.0	1.4
TOTALS				0.0	0.0	1295.3											9747.4		22.2	



SGN-DET-02

<p>Globetrotters[®] Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, IL 60606</p>	USER NAME = mkoisir	DESIGNED	REVISED -
		DRAWN	REVISED -
	PLOT SCALE = 1/8"=1'	CHECKED	REVISED -
	PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GROUND MOUNTED SIGNS

SCALE: 1" = 10' SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	217
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:

Field Units
 $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.

All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.

The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

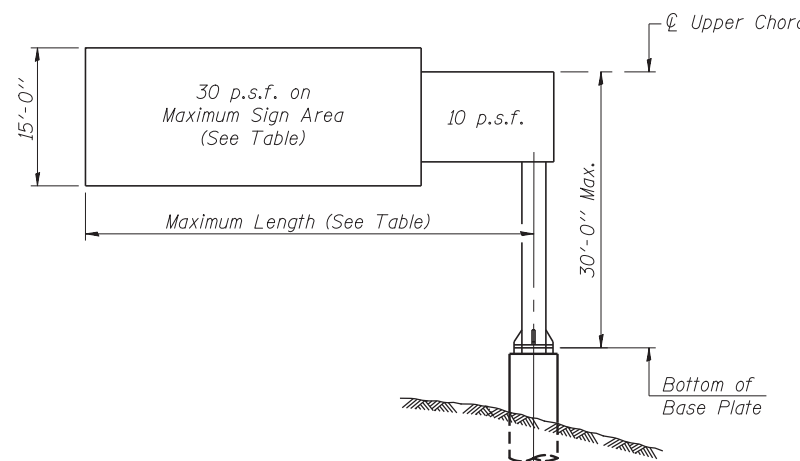
FOUNDATIONS: The contract unit price for Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE I-C-A	Foot	---
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE II-C-A	Foot	28.83
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE III-C-A	Foot	---
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	---
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	8.5

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D _s	Total Sign Area
1C016U045R006.2	122+00	II-C-A	28'-10"	641.61	21'-9"	9'-0"	126 SF

Truss Type	Maximum Sign Area	Maximum Length
I-C-A	170 Sq. Ft.	25 Ft.
II-C-A	340 Sq. Ft.	30 Ft.
III-C-A	400 Sq. Ft.	40 Ft.



DESIGN WIND LOADING DIAGRAM

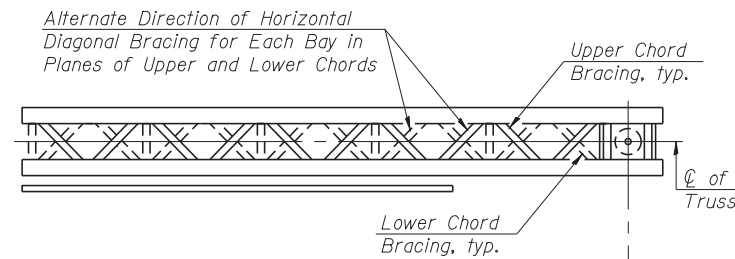
Parameters shown are basis for I.D.O.T. Standards. Installations not within dimensional limits shown require special analysis for all components.

Note:

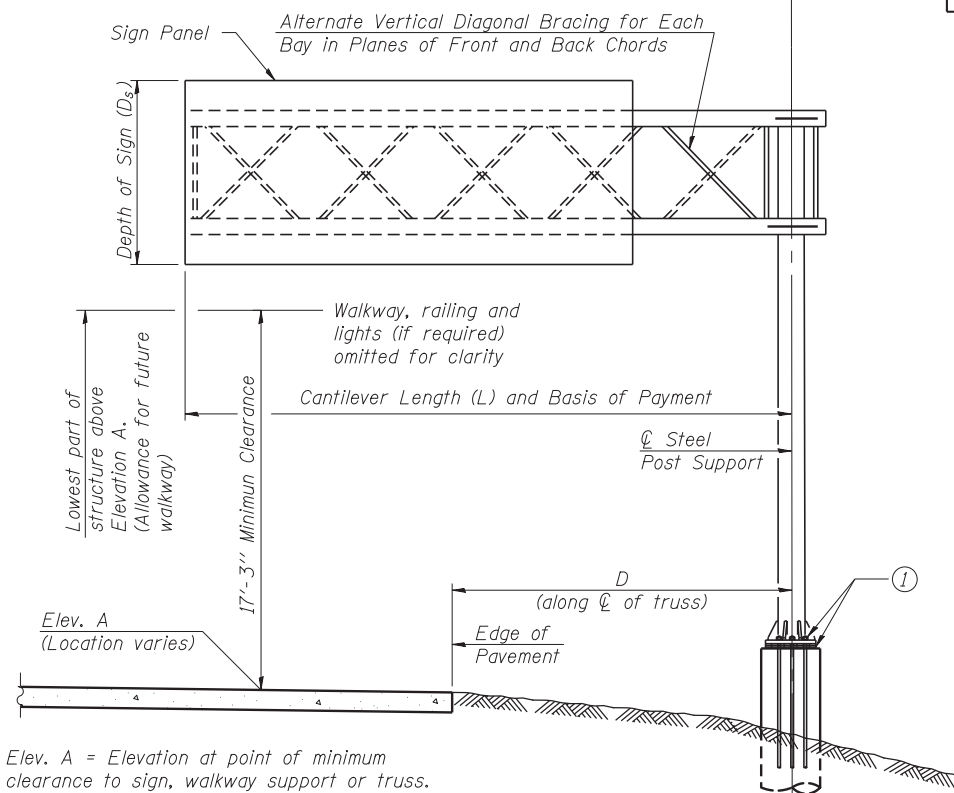
Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of the trusses.

① After adjustments to level truss and insure adequate vertical clearance, all top and leveling nuts shall be tightened against the base plate with a minimum torque of 200 lb.-ft. Stainless steel mesh shall then be placed around the perimeter of the base plate. Secure to base plate with stainless steel banding.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.



TYPICAL PLAN
(Walkway not shown)



Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

TYPICAL ELEVATION

Looking in Direction of Traffic

Sign support structures may be subject to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these vibrations and oscillations, consideration should be given to attaching temporary blank sign panels to the structure.



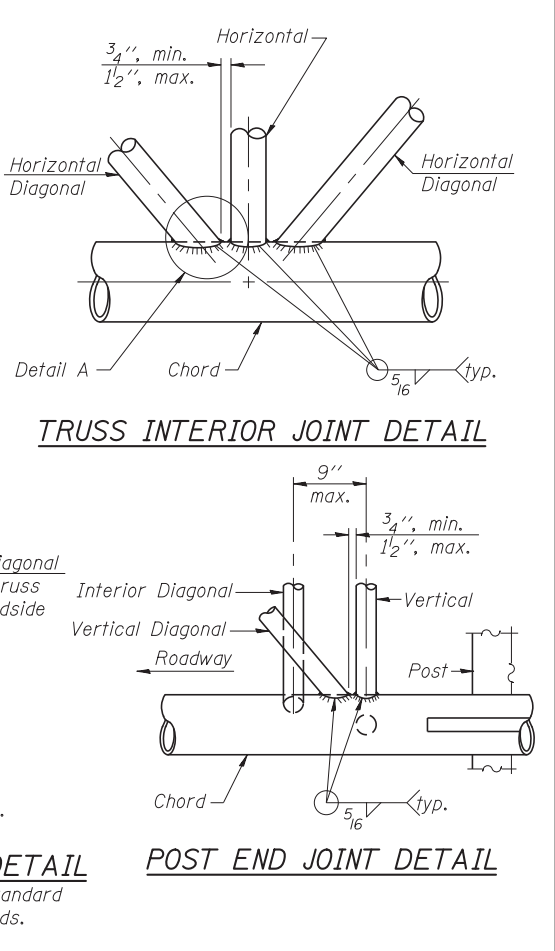
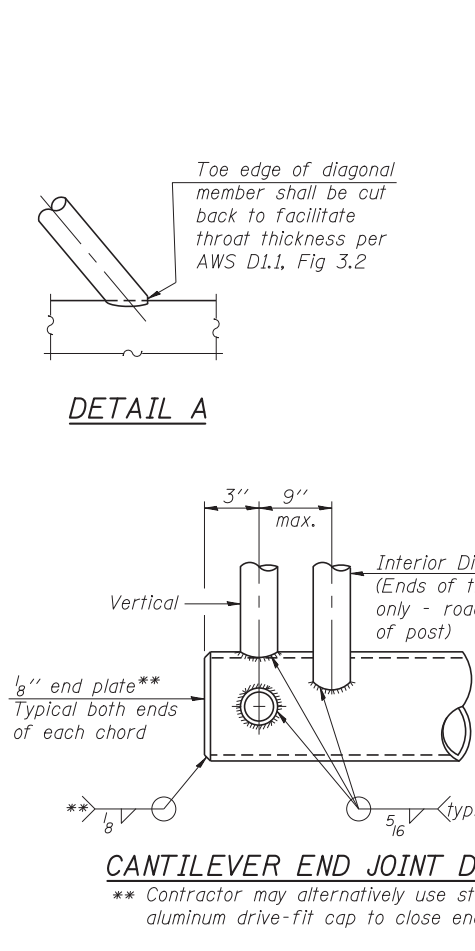
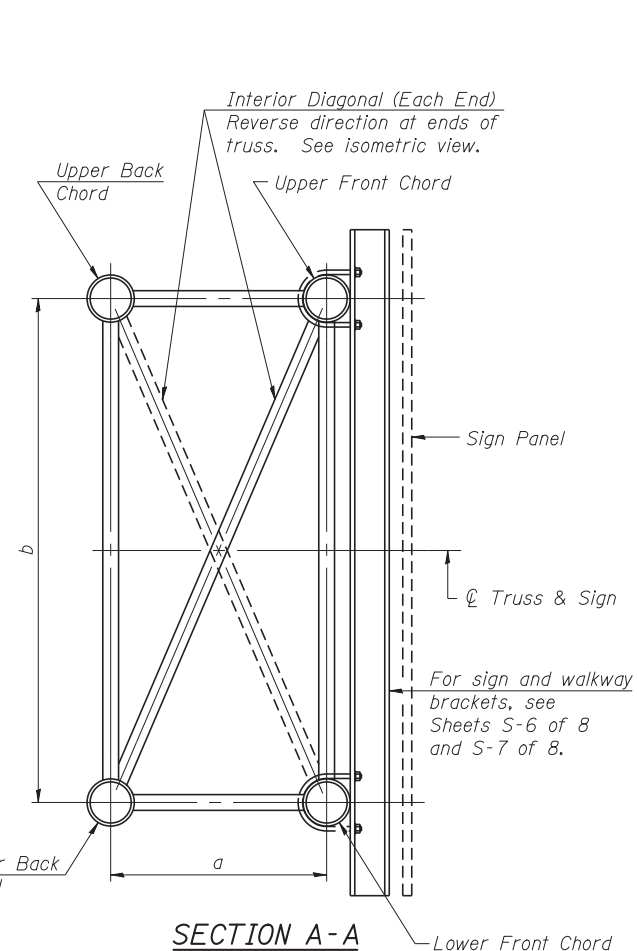
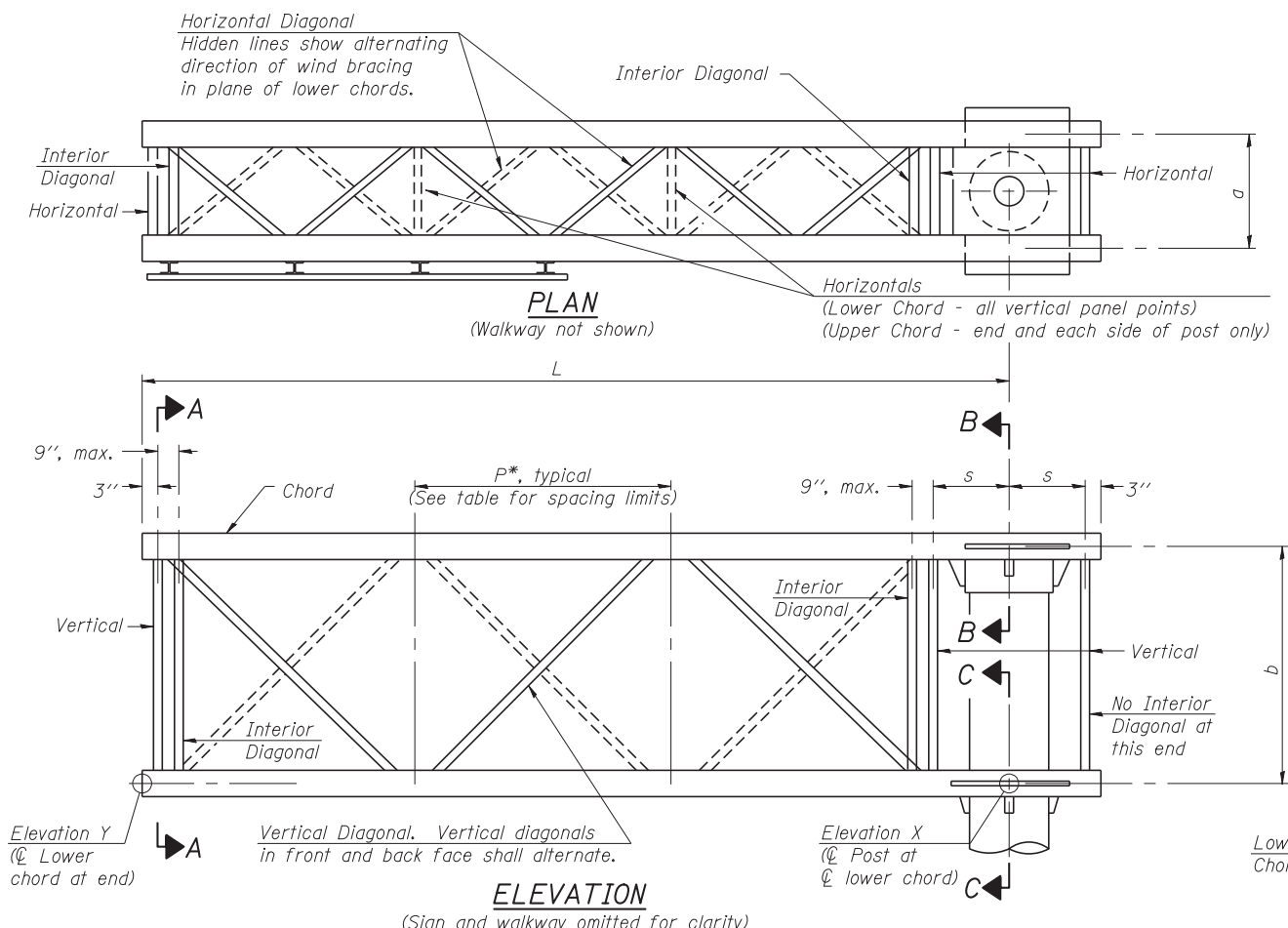
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CHECKED MRI	REVISED	
PLOT SCALE = 0.883333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL POST

SHEET NO. S-1 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	218
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



TYPICAL TRUSS UNIT

Note: For Section B-B and Section C-C, see Base Sheet OSC-A-3.

There are twice as many horizontal diagonals as there are vertical diagonals.

TRUSS UNIT TABLE

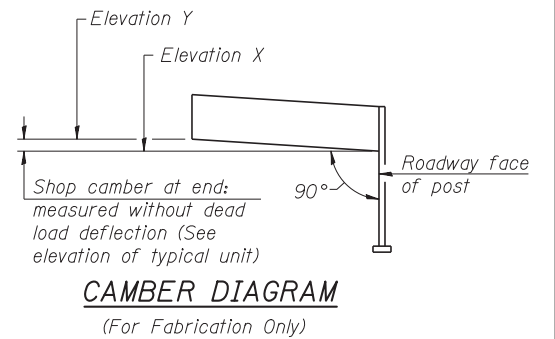
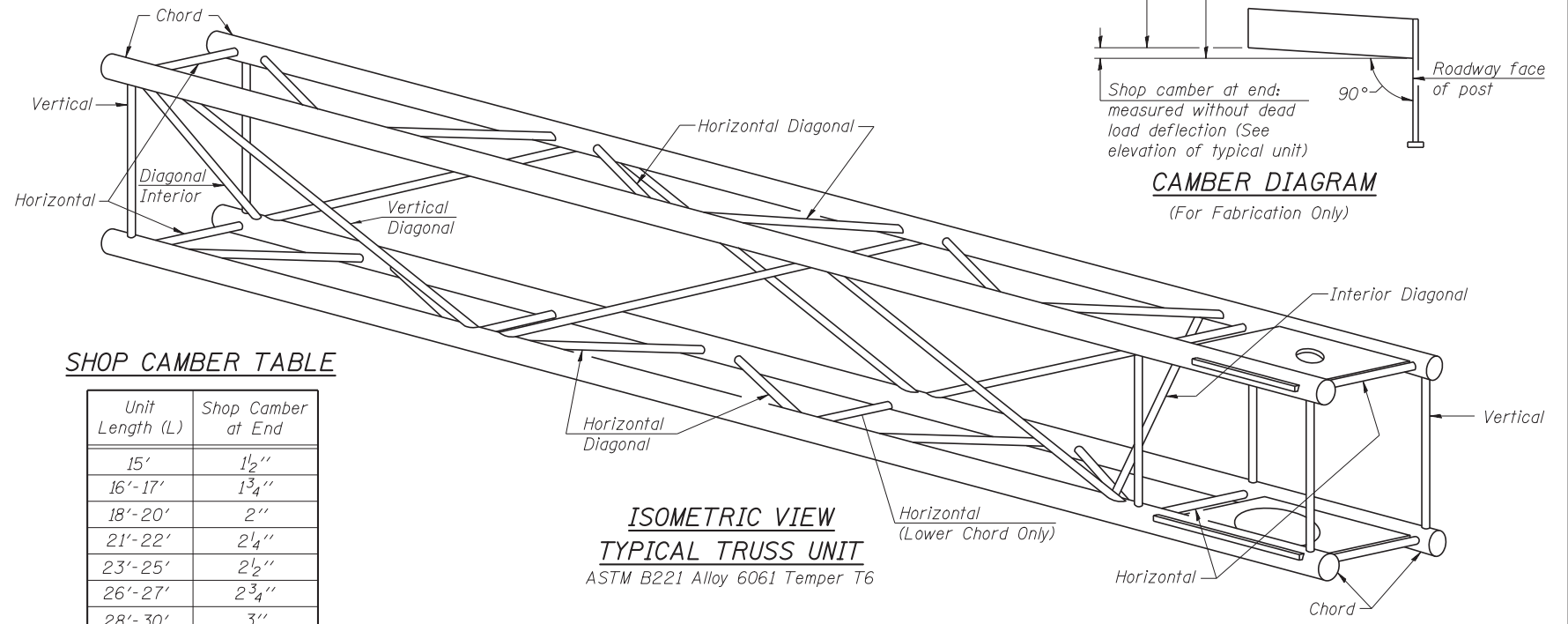
Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals	
					O.D.	Wall	O.D.	Wall
I-C-A	24"	54"	16"	36" min. to 48" max.	5"	5/16"	2 1/2"	5/16"
II-C-A	36"	66"	21"	42" min. to 54" max.	6 1/2"	5/16"	3 1/4"	5/16"
III-C-A (35' Max.)	36"	84"	21"	48" min. to 66" max.	7"	3/8"	3 1/2"	3/8"
III-C-A (>35' to 40')	36"	84"	21"	48" min. to 66" max.	8"	3/8"	3 1/2"	3/8"

$$*P = \frac{L - s - 3''}{\# \text{ Panels}}$$

Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
10016U045R006.2	122+00	II-C-A	28'-10"	6	4'-5 5/8"

SHOP CAMBER TABLE

Unit Length (L)	Shop Camber at End
15'	1 1/2"
16'-17'	1 3/4"
18'-20'	2"
21'-22'	2 1/4"
23'-25'	2 1/2"
26'-27'	2 3/4"
28'-30'	3"
31'-32'	3 1/4"
33'-35'	3 1/2"
36'-37'	4"
38'-40'	4 1/2"



OSC-A-2

9-15-11



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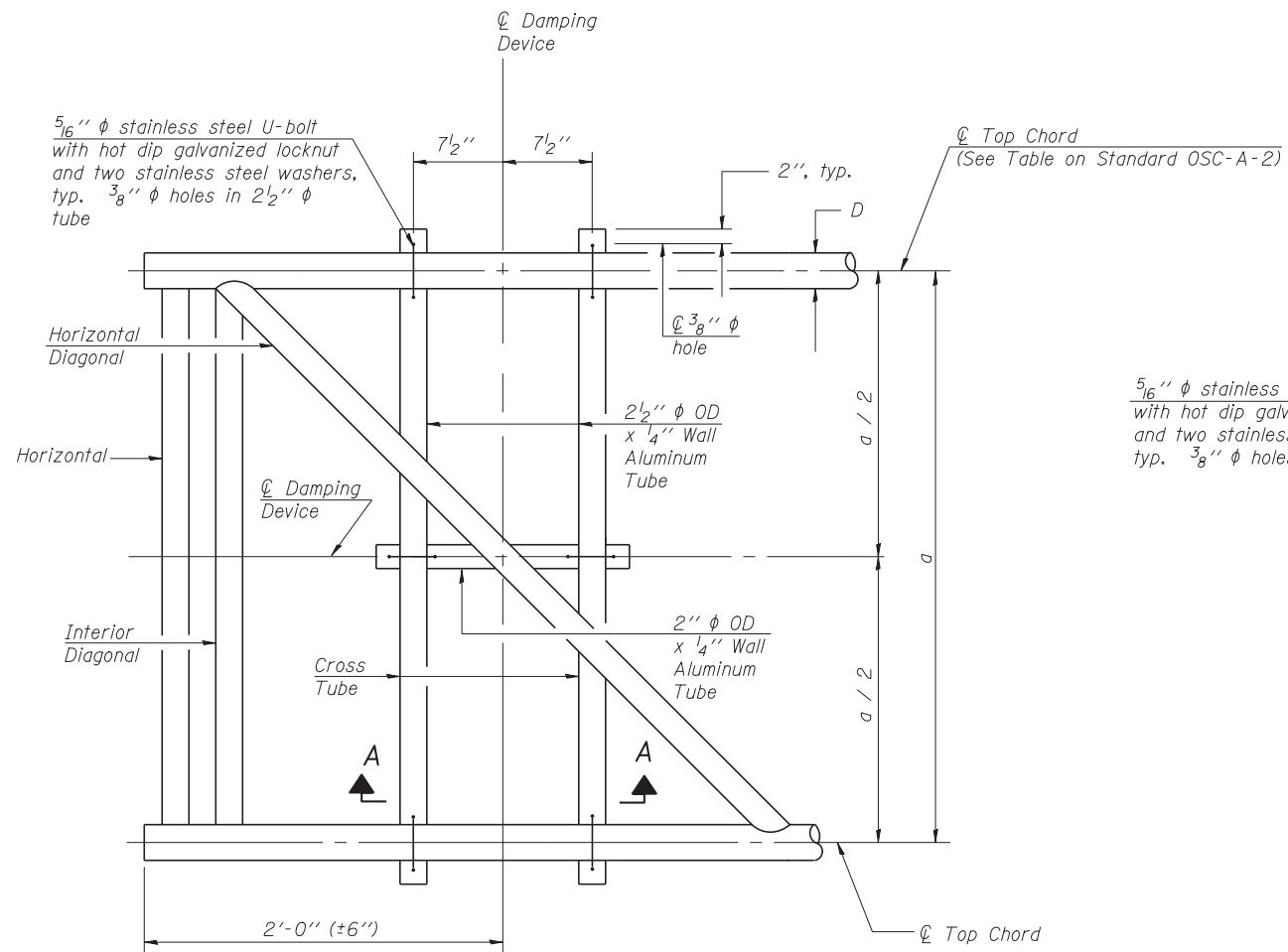
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - TRUSS DETAILS
ALUMINUM TRUSS & STEEL POST

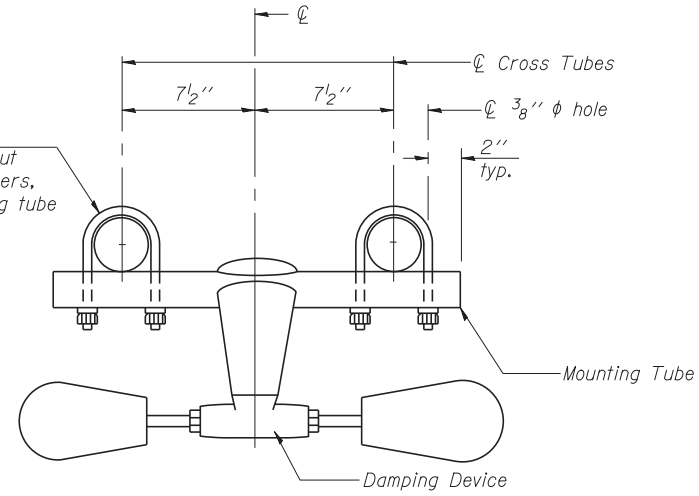
SHEET NO. S-2 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	219
CONTRACT NO. 60P35				

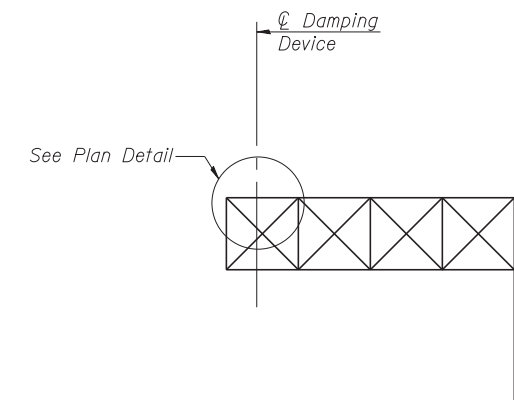
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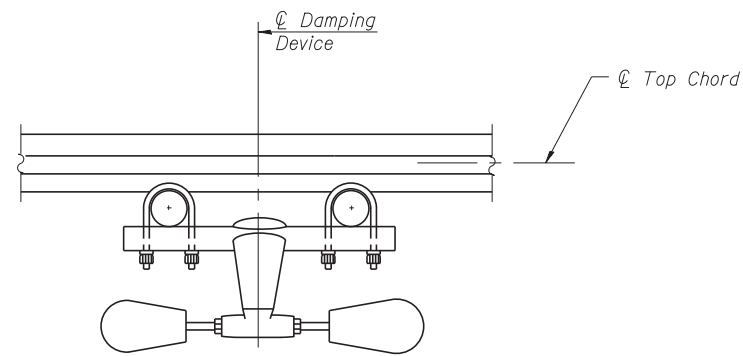
PLAN DETAIL



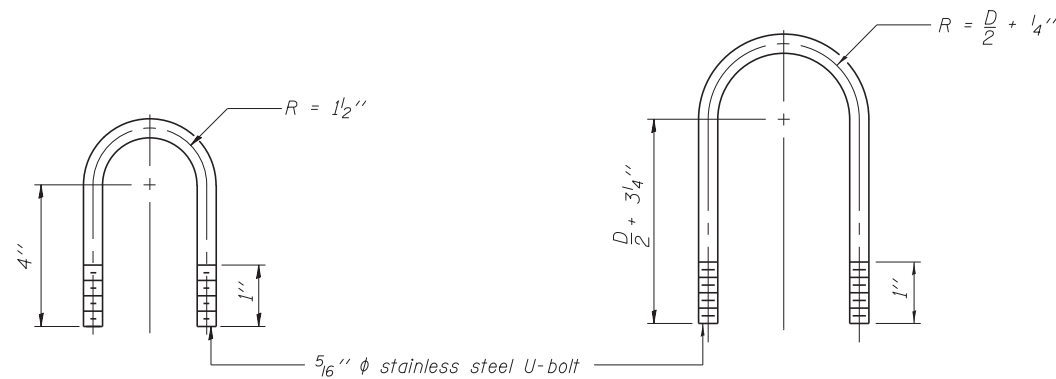
TRUSS DAMPING DEVICE CONNECTION DETAIL



ELEVATION
Aluminum Cantilever Sign Structure



SECTION A-A



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)

TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical)

- GENERAL NOTES**
- Damper: One damper per truss. (31 lbs. Stockbridge-Type Aluminum-29" minimum between ends of weights)
 - Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6

OSC-A-D

9-15-11



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	DATE 10/19/12	REVISED

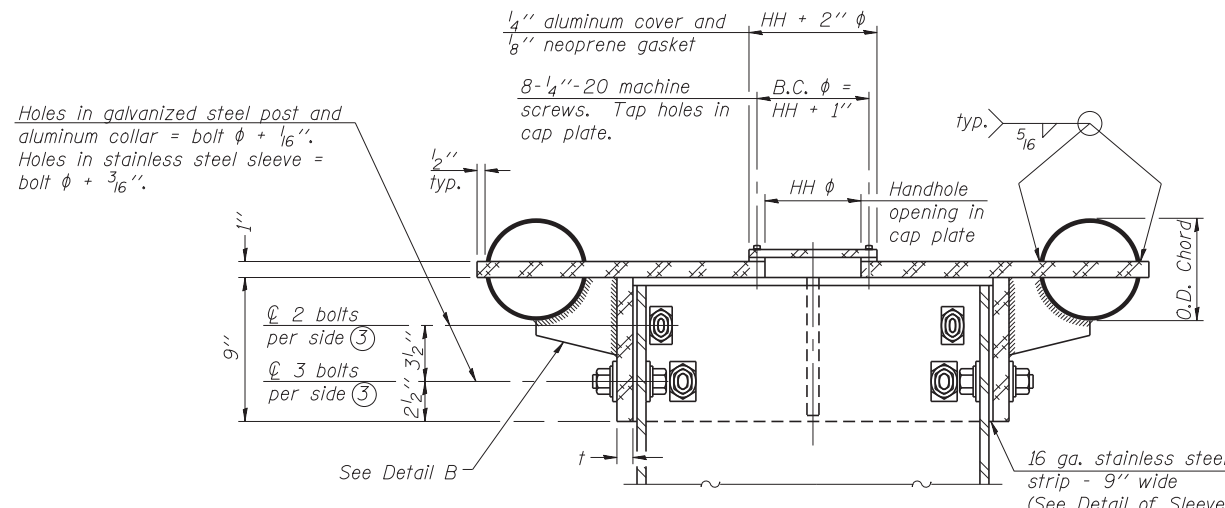
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURE
DAMPING DEVICE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	220
CONTRACT NO. 60P35				

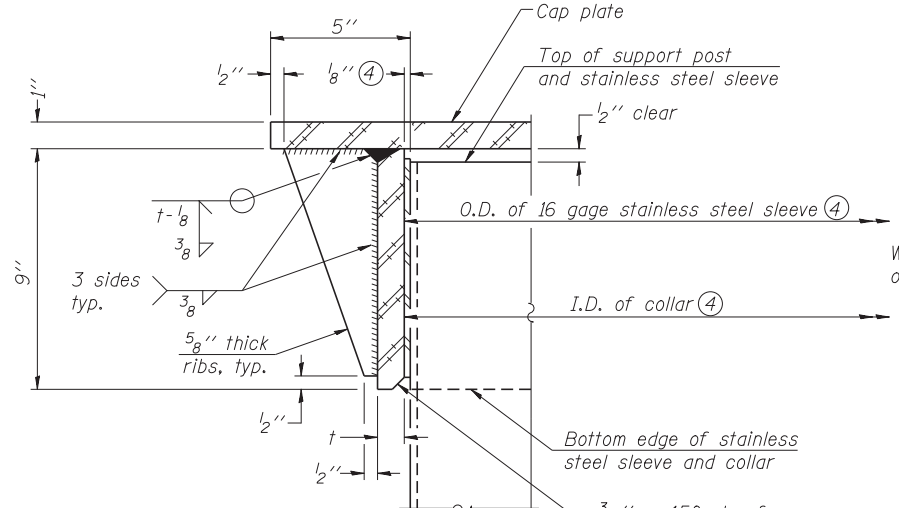
SHEET NO. S-3 OF 8 SHEETS

ILLINOIS FED. AID PROJECT

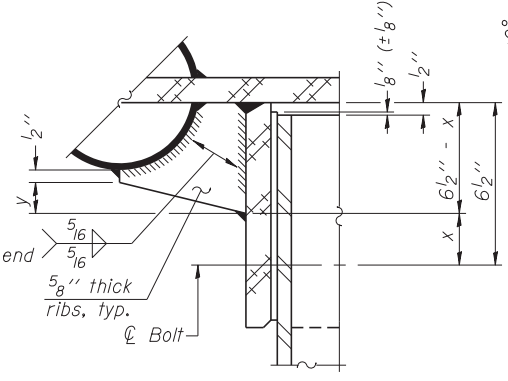


④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8" (+/- 1/16"). Maximum gap between post and collar at any location equals 1/8" before tightening bolts.

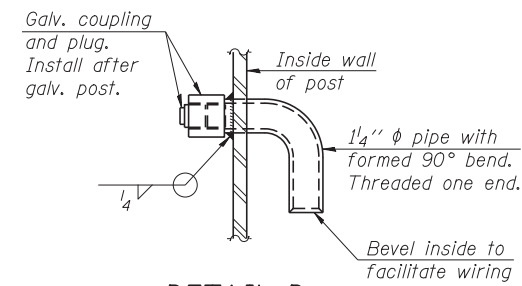
SECTION B-B
Bolts, washers (including contoured washers), and locknuts shall be stainless steel.



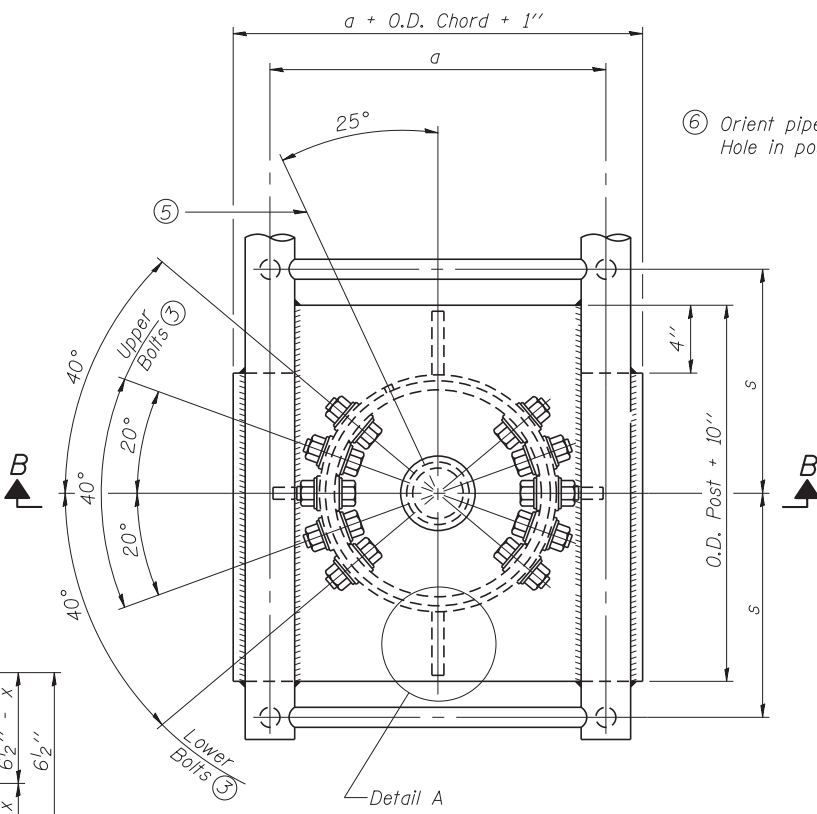
DETAIL A
(Two locations)
3/16" - 45° chamfer on inside of collar to facilitate field assembly



DETAIL B
Two locations
(For details not shown, see Detail C)

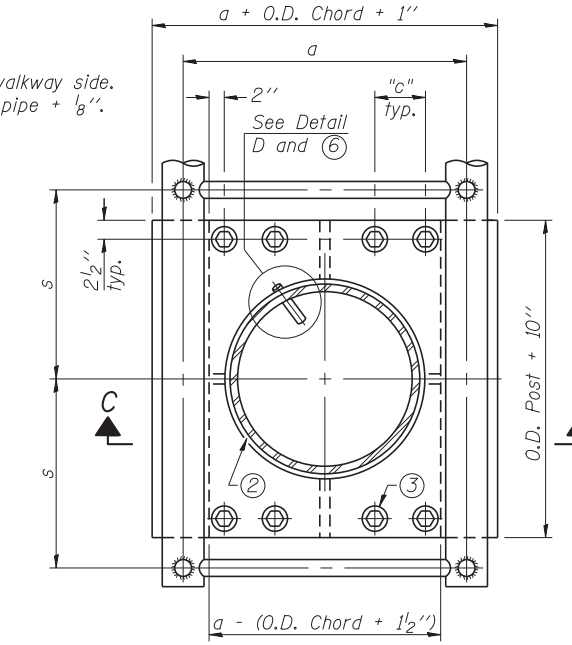


DETAIL D



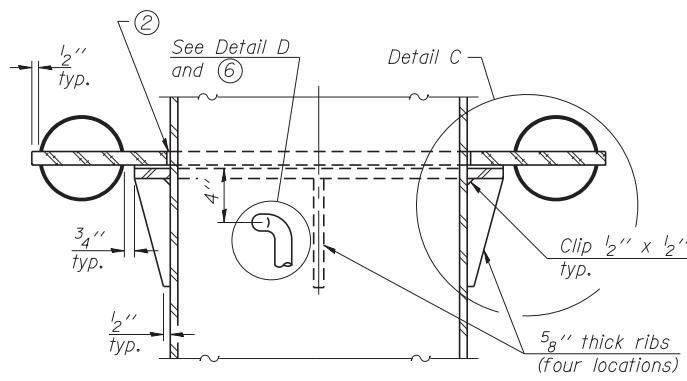
PLAN VIEW - TOP OF COLUMN

⑤ Optional full penetration weld in collar. (Two locations maximum....(180° apart)....X-ray or UT 100%)

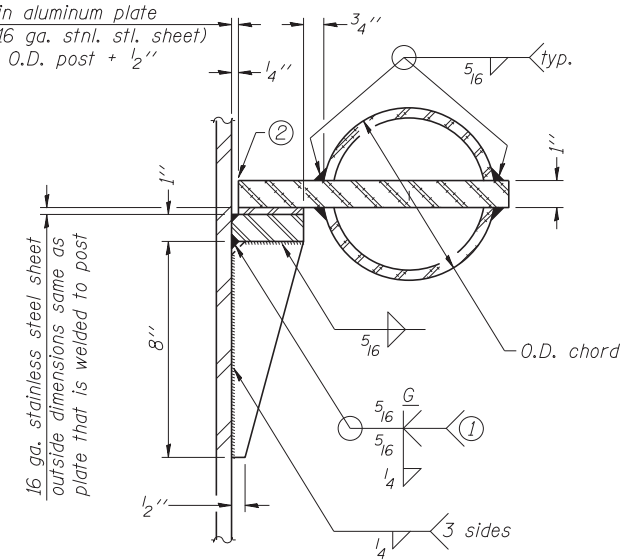


SECTION THRU POST ABOVE LOWER CHORDS

Hole in aluminum plate (and 16 ga. stnl. stl. sheet) to be O.D. post + 1/2"



SECTION C-C



DETAIL C

CONTOURED WASHERS

Bolt Size	Contoured Washers	
	Hole Dia.	B
7/8"	1"	2 1/2"
1"	1 1/8"	3"
1 1/4"	1 3/8"	3 1/4"

DETAIL OF STAINLESS STEEL SLEEVE

Weld to post after galvanizing. (Prepare post surface to insure tight, uniform fit and allow welding.) Welds to be 1 1/2" long at 6" cts. along top edge and at 1/4" opening.

Truss Type	Post Size	Upper & Lower Connection Bolt Diameter ③	Lower Juncture Bolt Spacing Dimension "c" ③	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs	
						x	y
I-C-A	16" phi (83#/')	7/8"	3 1/4"	8"	5/8"	1 3/4"	2 1/4"
II-C-A	24" phi (125#/')	1"	3 1/2"	12"	7/8"	2"	1 1/4"
III-C-A (35' max.)	24" phi (125#/')	1 1/4"	3 1/2"	12"	7/8"	2"	1"
III-C-A (>35' to 40')	24" phi (171#/')	1 1/4"	3 1/2"	12"	7/8"	2"	1"

- ① Grind top if required to fully seat aluminum plate and stainless steel sheet.
- ② After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Cantilever.
- ③ Upper and lower connection bolts in collar and bolts at lower chord connection shall be high strength with matching locknuts. Connection bolts shall have 2 stainless steel flat washers each.

OSC-A-3

9-15-11



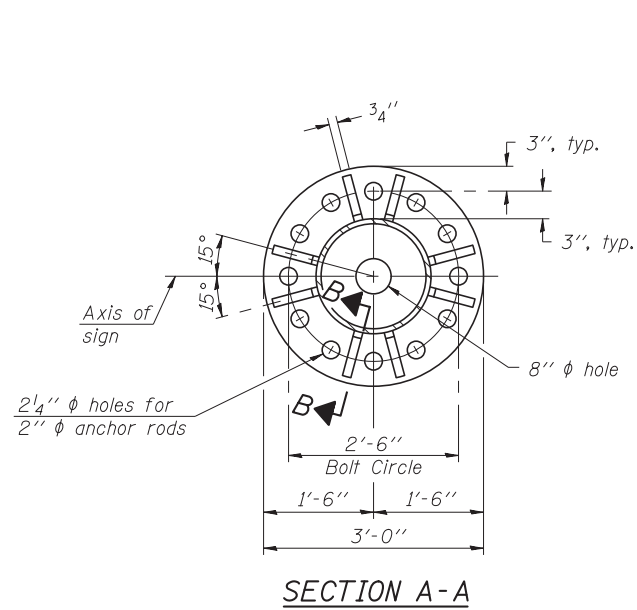
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PLOT SCALE = 0.883333:1	CHECKED MRI	REVISED
PLOT DATE = 09-OCT-2012	DRAWN LK	REVISED
	DATE 10/19/12	REVISED

STATE OF ILLINOIS
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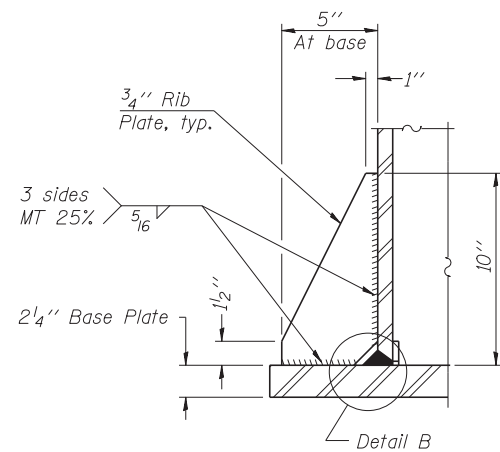
CANTILEVER SIGN STRUCTURES - JUNCTURE DETAILS
ALUMINUM TRUSS & STEEL POST

SHEET NO. S-4 OF 8 SHEETS

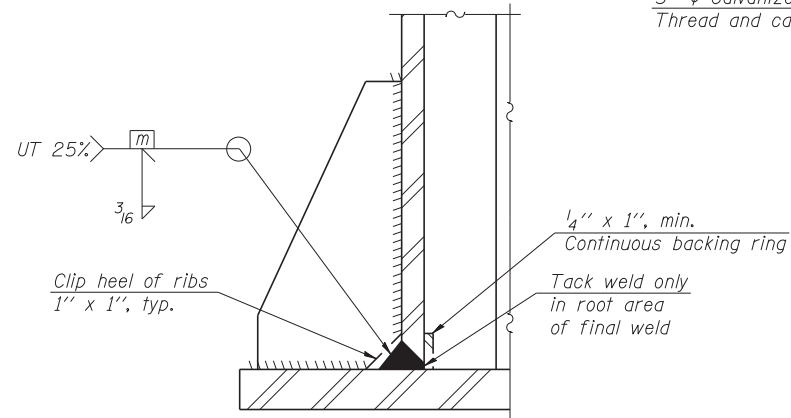
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	221
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



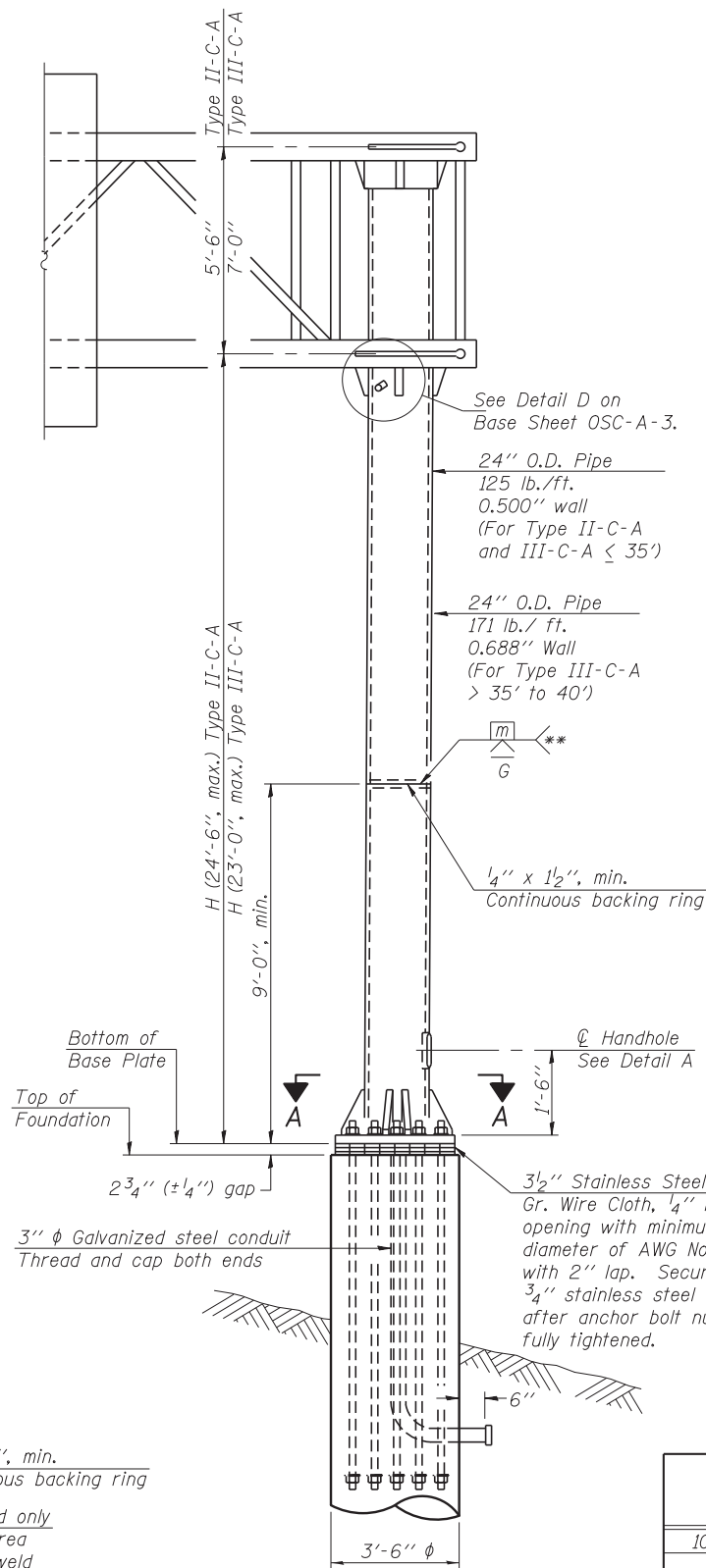
SECTION A-A



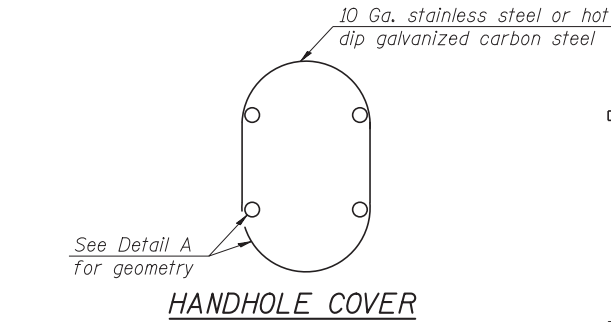
SECTION B-B



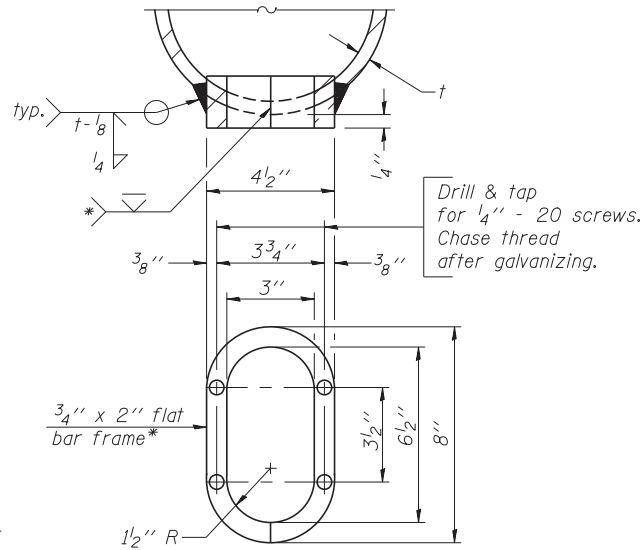
DETAIL B
(Typical rib)



FRONT ELEVATION
For Foundation Details
see Base Sheet OSC-A-9.



HANDHOLE COVER



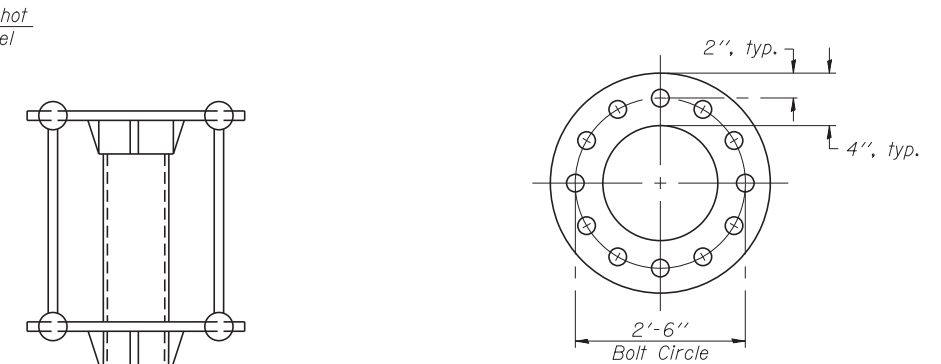
DETAIL A

* Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.

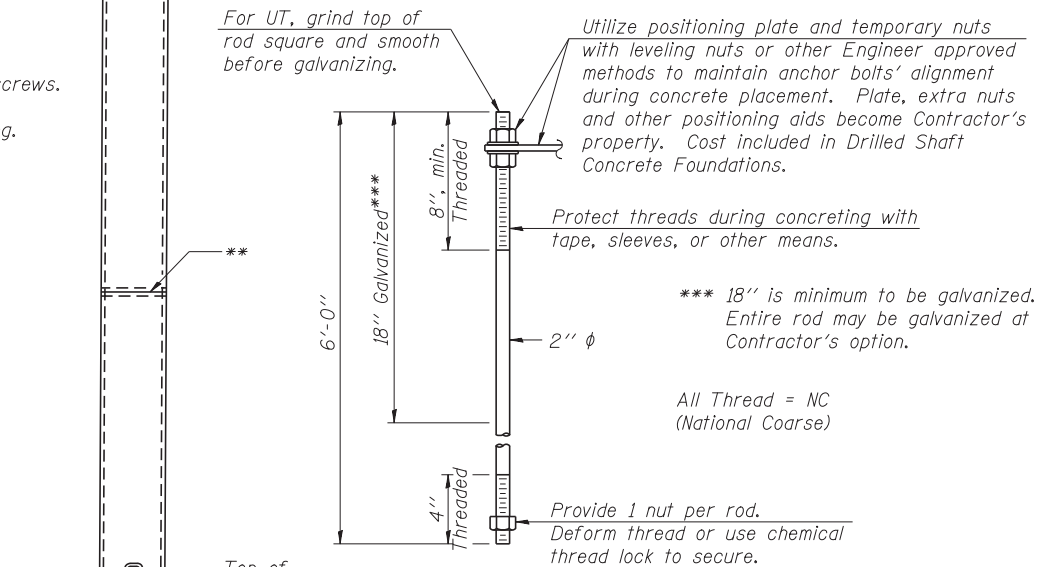
** Butt welded joint in post is only allowed for post heights (H) over 20 ft. in length. If used, weld procedure must be preapproved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	Station	H
1C016U045R006.2	122+00	23'-6 1/8"

Note: "H" based on 15'-0" or actual sign height, whichever is greater.



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize the upper 18" (minimum) and associated AASHTO M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide a nut at bottom, a hexagon locknut and washer above base plate and a leveling nut and washer below base plate. Nuts shall each be tightened with 200 lb.-ft. minimum torque against base plate. Before or after threading, but before galvanizing, each anchor rod shall be ultrasonically tested (UT) by a Level II or III Inspector, qualified in accord with ANSI guidelines, to insure no rejectable flaws exist in the upper 18" (tension criteria). Cost of testing included in Drilled Shaft Concrete Foundations.

SIDE ELEVATION

OSC-A-5

9-15-11

HNTB

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	DATE 10/19/12	REVISED

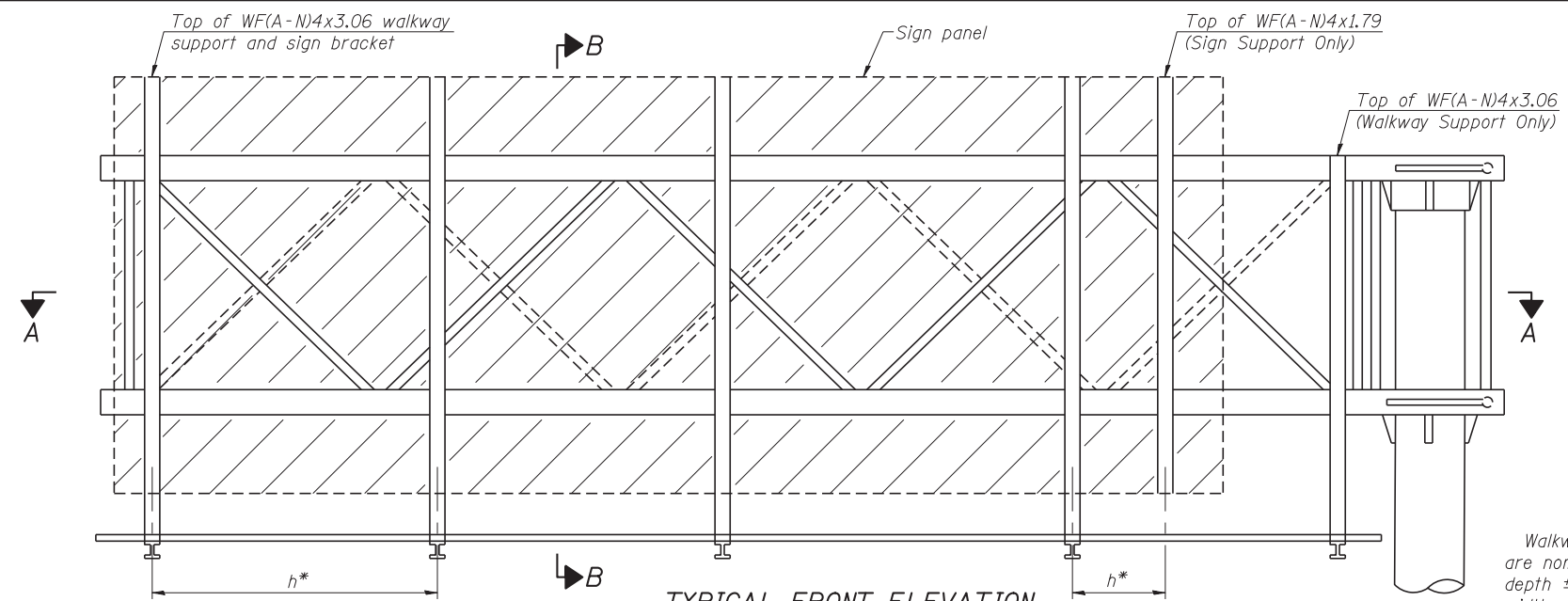
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - TYPE II-C-A & III-C-A
TRUSS SUPPORT POST - ALUMINUM TRUSS & STEEL POST

SHEET NO. S-5 OF 8 SHEETS

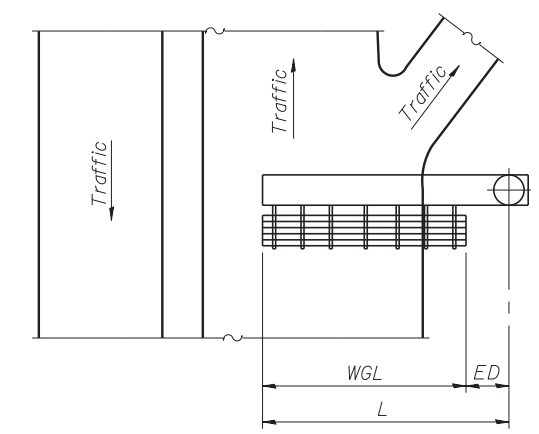
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	222
CONTRACT NO. 60P35				

ILLINOIS FED. AID PROJECT

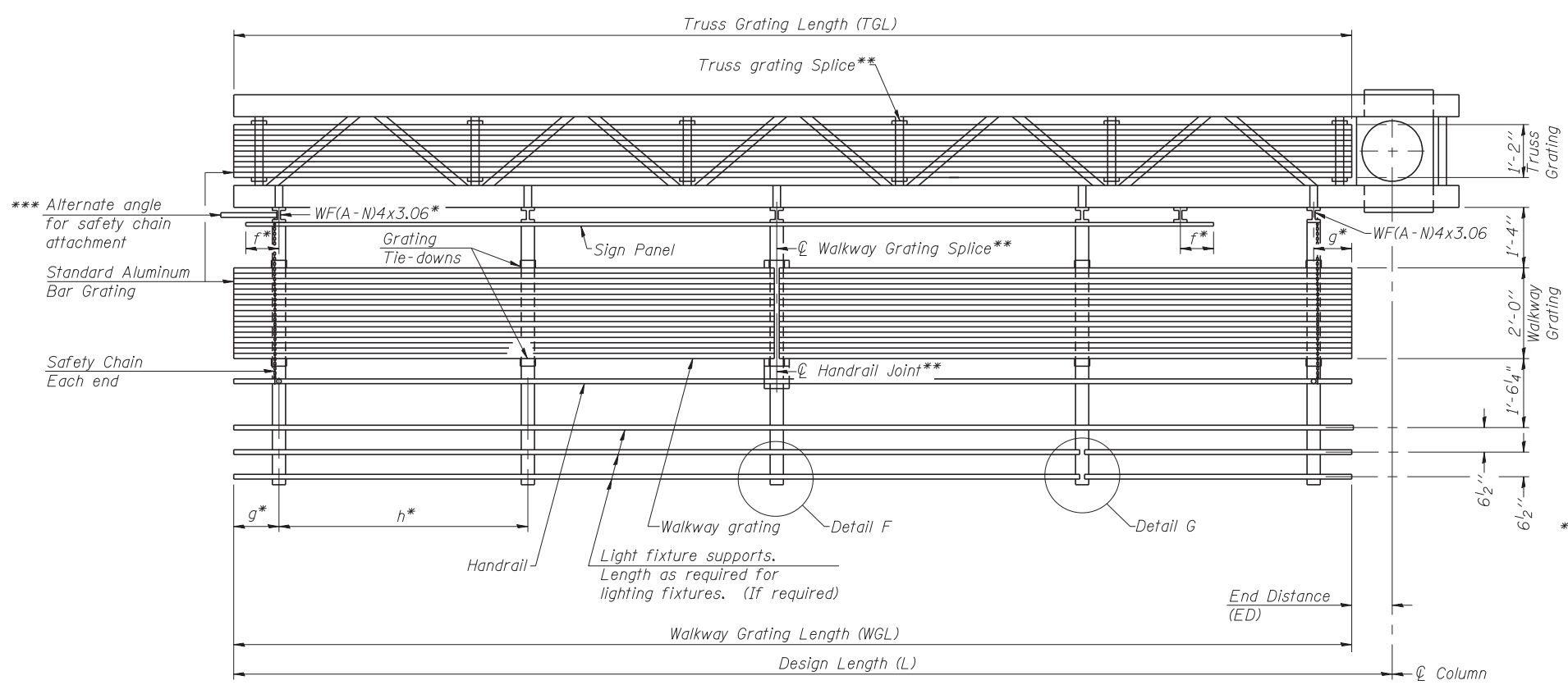


TYPICAL FRONT ELEVATION
With lights and handrail omitted for clarity.

Walkway and truss grating dimensions are nominal and may vary (width ±½", depth ±½") based on available standard widths.



PLAN WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)



SECTION A-A

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in Overhead Sign Structure Cantilever.

Handrail and walkway grating shall span a minimum of three brackets between splices.
** Use and location of handrail joints or grating splices are optional, based on lengths needed and material availability.

$$TGL = L - \left(\frac{\text{Post O.D.}}{2} + 6'' \right)$$

Structure Number	Station	WGL	ED	TGL
1C016U045R006.2	122+00	---	---	27'-4"

Notes:
* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to center of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway to center of nearest bracket)
h = 6'-0" maximum (center to center sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
*** If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-A-8

For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Sheet S-7 of 8.
For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-A-8.

BRACKET TABLE

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
	14'-0"	3
	20'-0"	4
	26'-0"	5
	32'-0"	6

Walkways are not required. This sheet is included to show, in the elevation view, the location of where Section B-B on Sheet S-7 of 8 is cut for the sign support/truss grating details.



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PLOT SCALE = 0.883333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

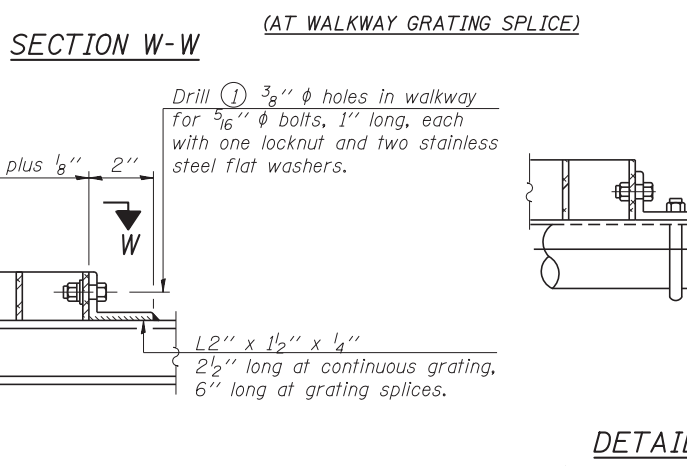
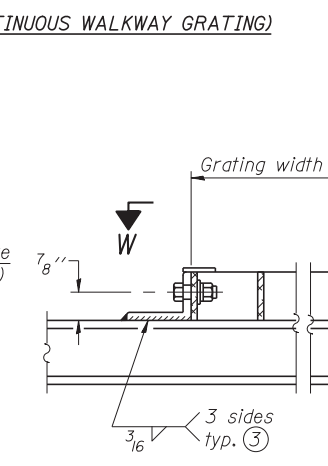
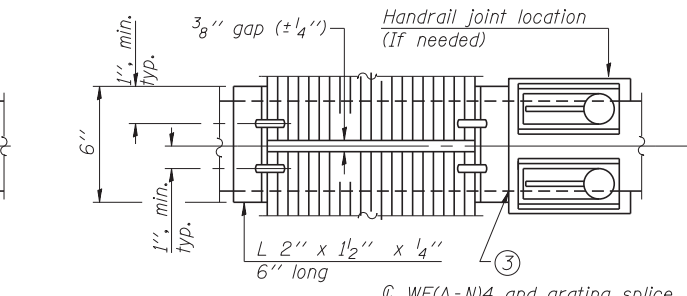
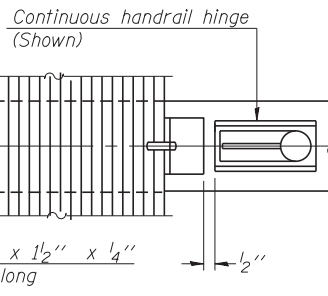
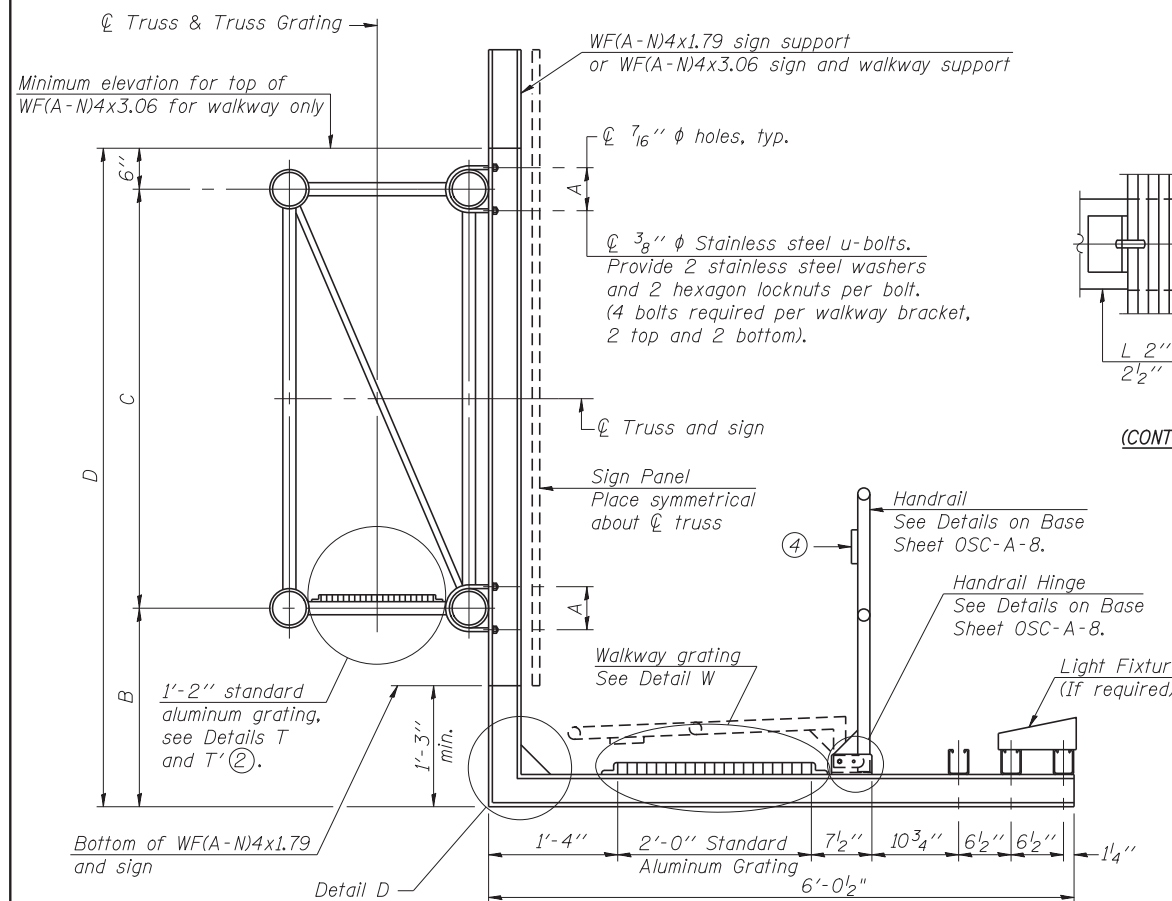
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CANTILEVER SIGN STRUCTURES - ALUMINUM WALKWAY
DETAILS - ALUMINUM TRUSS & STEEL POST**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	223
CONTRACT NO. 60P35				

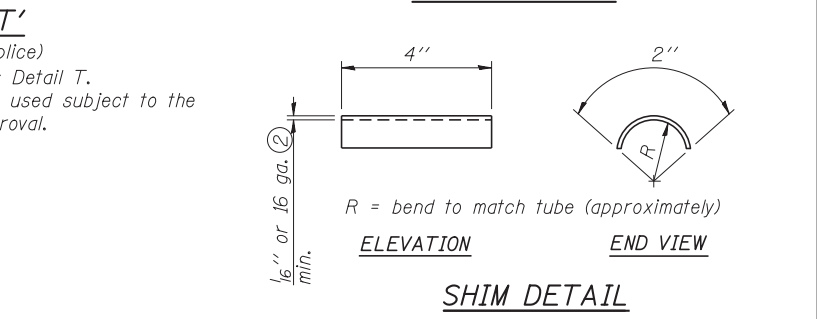
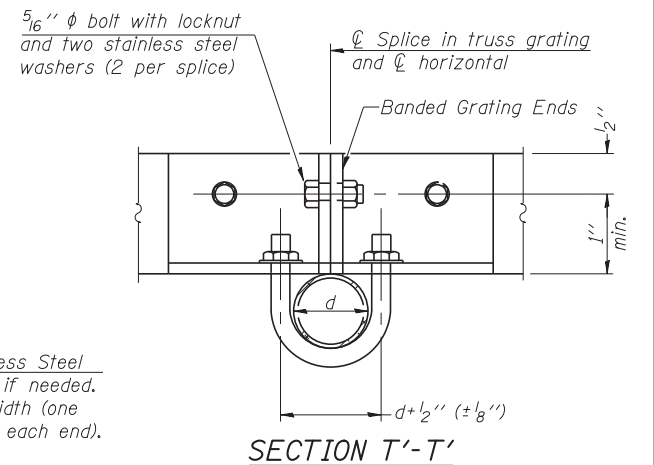
SHEET NO. S-6 OF 8 SHEETS

ILLINOIS FED. AID PROJECT



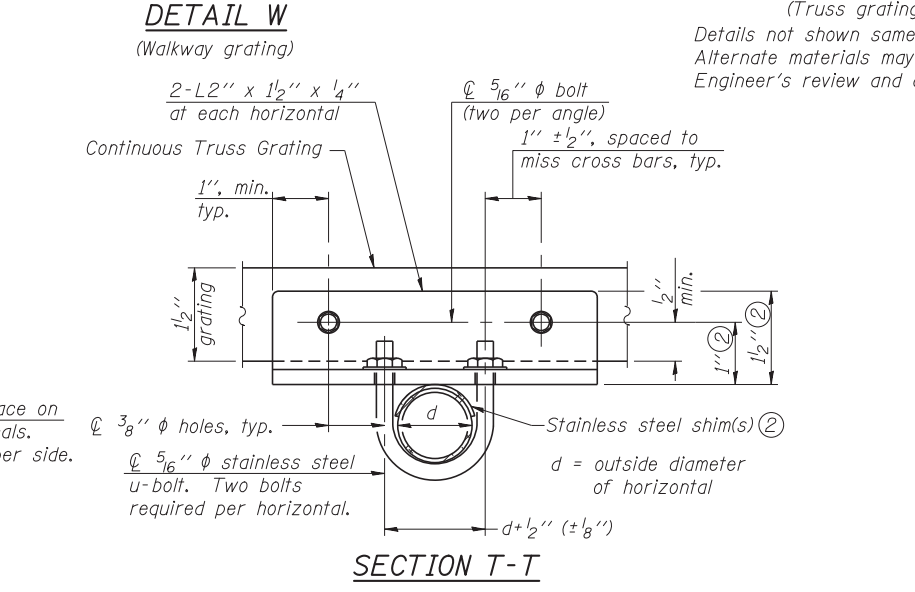
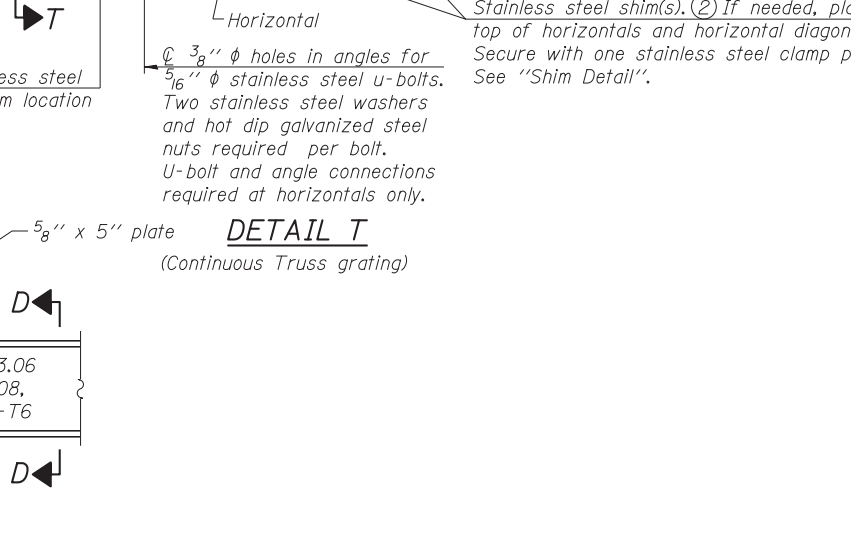
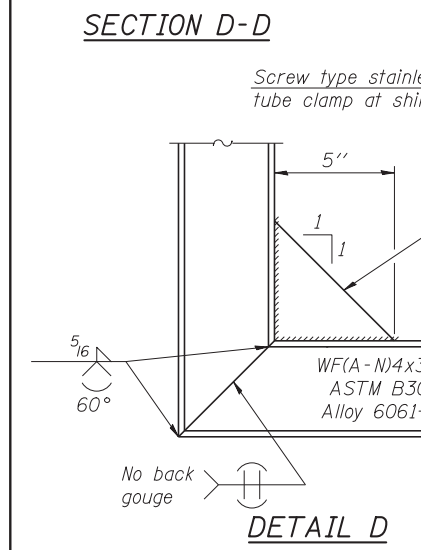
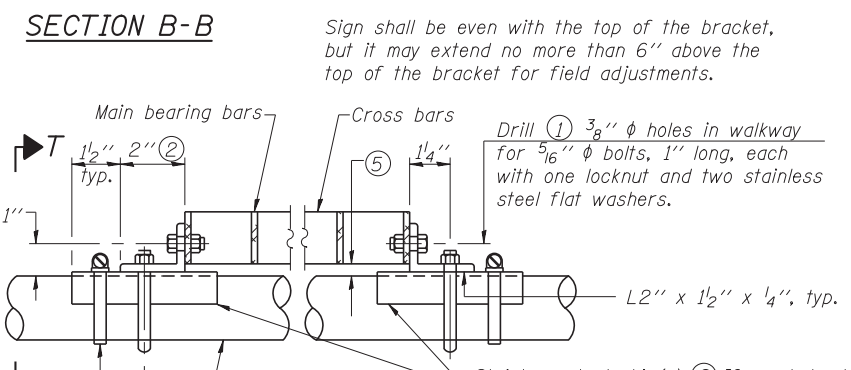
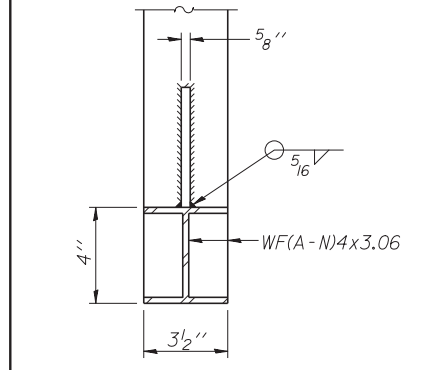
SPECIFICATIONS FOR STANDARD ALUMINUM GRATING
 Main Bearing Bars (MBB) shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.
 Cross bars (CB) shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR
 Aluminum Grating with modified "t" sections for main bearing bars shall meet the following requirements:
 Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1 1/2", spaced on 1 3/16" centers.
 Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.



- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OSC-A-8.)
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- Based on actual sign height, D_s, given on Sheet S-1 of 8.

Walkways are not required. This sheet is included to show, in Section B-B, the sign support/truss connection details.



Structure Number	Station	A	⑥ B	C	⑥ D
1C016U045R006.2	122+00	6' 7/8"	---	5'-6"	---



USER NAME = lkalito	DESIGNED PCA	REVISED
CHECKED MRI	REVISOR	REVISOR
PLOT SCALE = 0.883333:1	DRAWN LK	REVISOR
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISOR

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

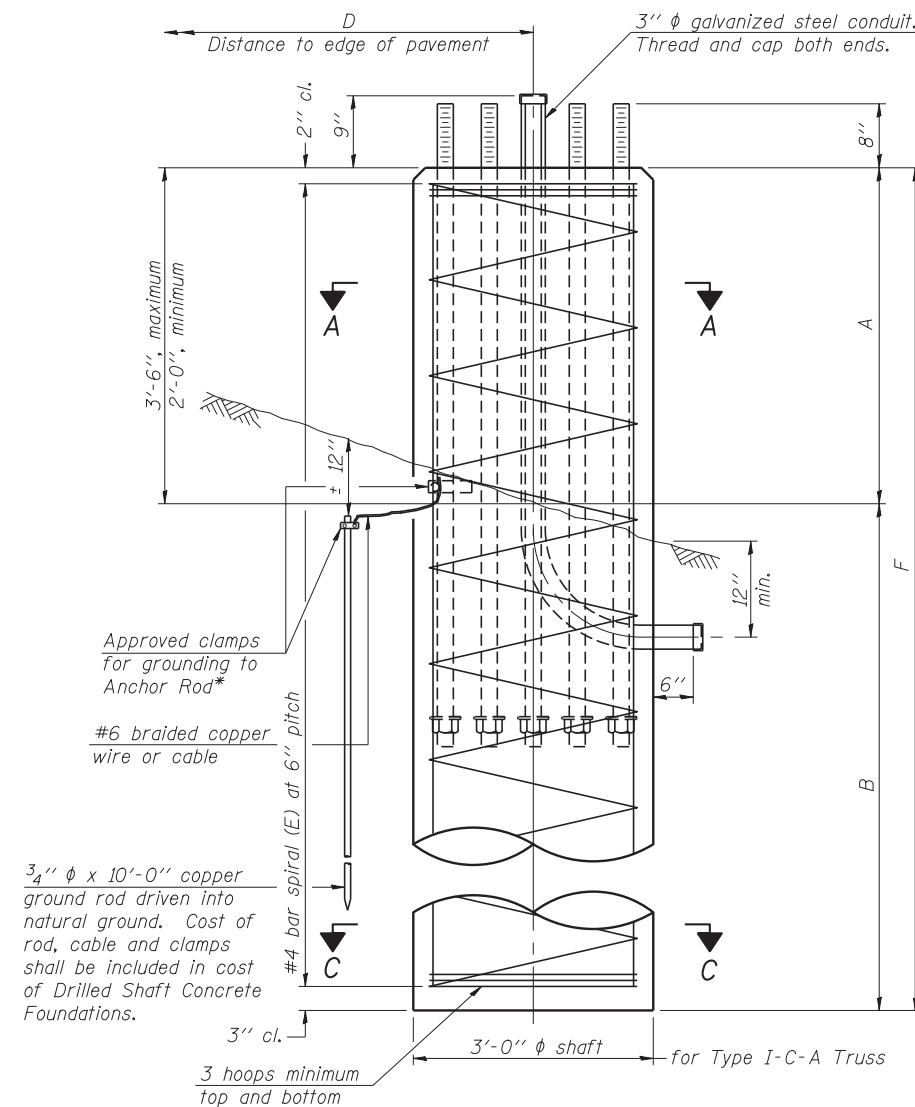
CANTILEVER SIGN STRUCTURES - WALKWAY DETAILS
 ALUMINUM TRUSS & STEEL POST

F.A. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 224
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

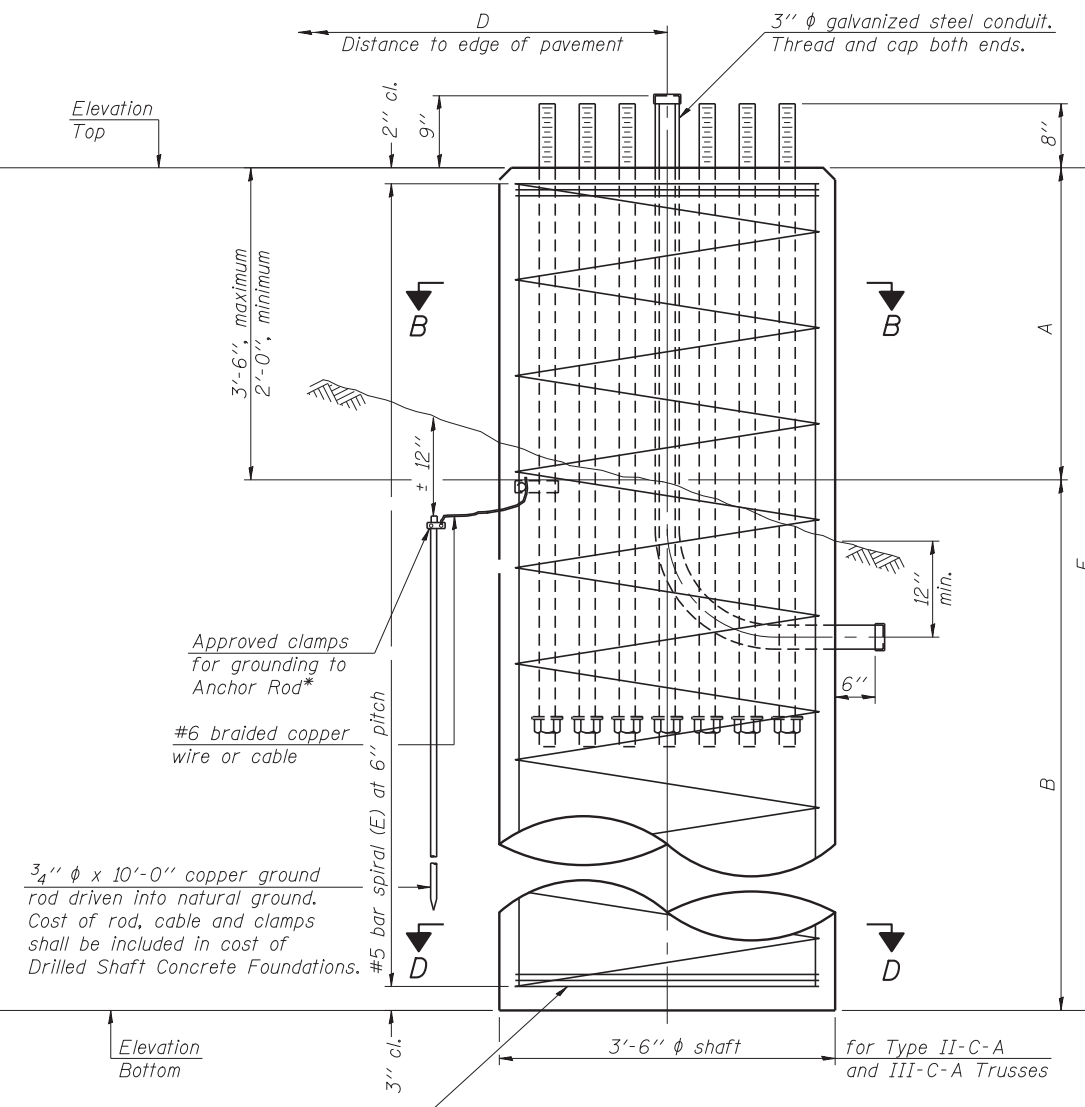
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SHEET NO. S-7 OF 8 SHEETS

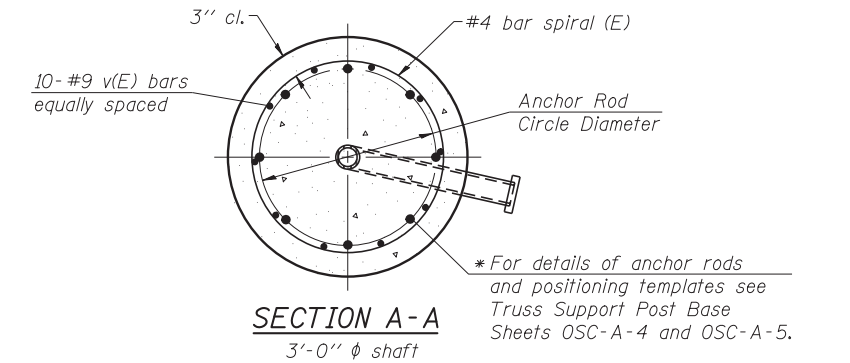
* Grind anchor rod to bright finish at ground clamp location before installing clamp.



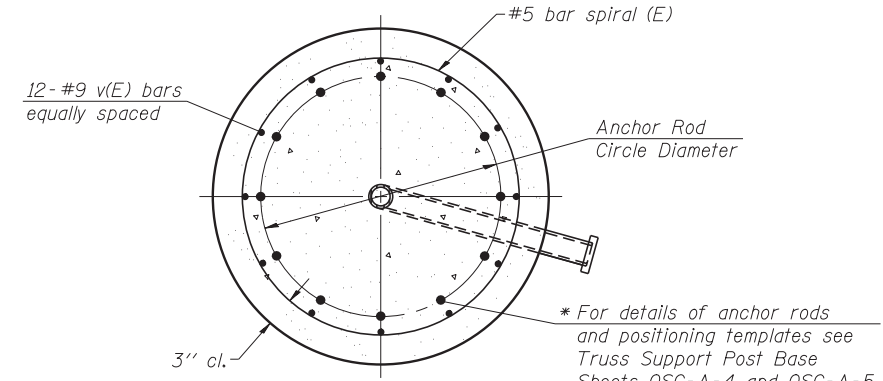
ELEVATION



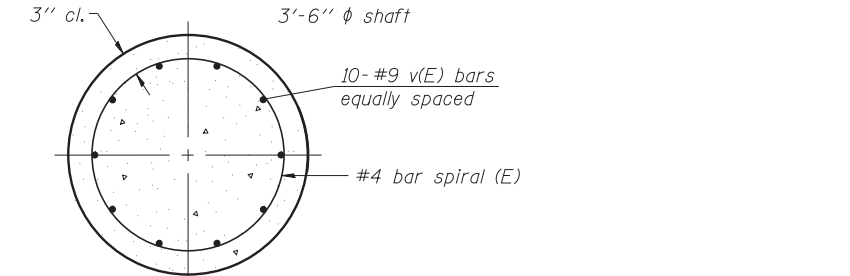
ELEVATION



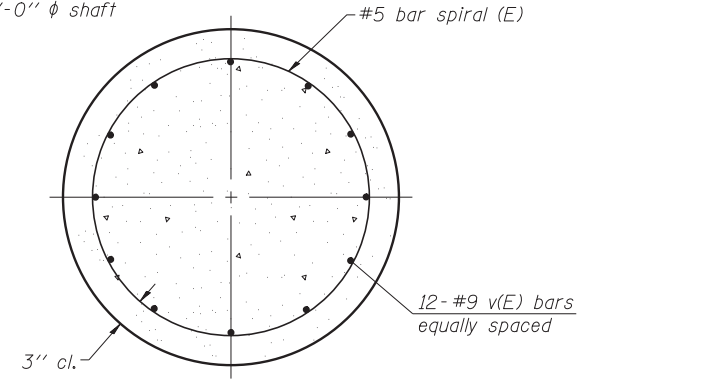
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES:
 The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.
 If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.
 No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.
 Concrete shall be placed monolithically, without construction joints.
 Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.
 A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundations".
 The cost of the steel conduit, ground rod, and other electrical hardware is included in "Drilled Shaft Concrete Foundations".

Truss Type	Post Base Sheet	Maximum Cantilever Length (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (in)	"B" Depth (ft)	Anchor Rods		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-C-A	OSC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	OSC-A-5	30	170	3.5	17.0	12	2	30
II-C-A	OSC-A-5	30	340	3.5	21.5	12	2	30
III-C-A	OSC-A-5	35	170	3.5	19.0	12	2	30
III-C-A	OSC-A-5	35	250	3.5	22.5	12	2	30
III-C-A	OSC-A-5	35	400	3.5	26.5	12	2	30
III-C-A	OSC-A-5	40	400	3.5	32.0	12	2	30

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	Qu	A	B	F	Class DS Concrete Cubic Yards
1C016U045R006.2	122+00	II-C-A	3'-6"	641.12	617.37	1.6 TSF	2'-3"	21'-6"	23'-9"	8.5

OSC-A-9

9-15-11



USER NAME = lkalite	DESIGNED PCA	REVISED
PLOT SCALE = 0.883333:1	CHECKED MRI	REVISED
PLOT DATE = 09-OCT-2012	DRAWN LK	REVISED
	DATE 10/19/12	REVISED

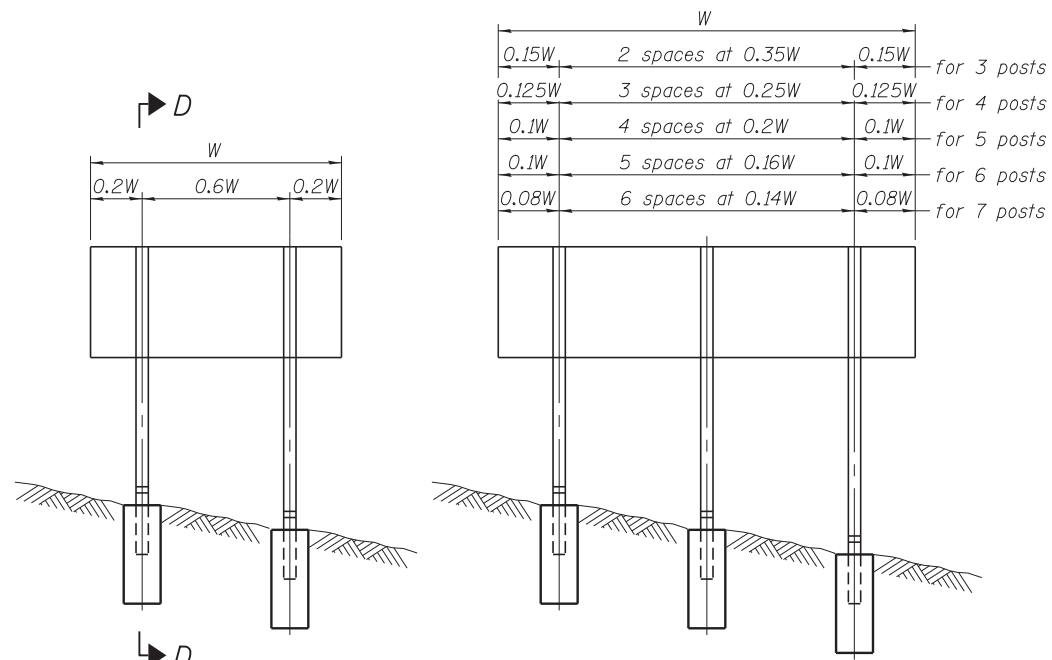
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - DRILLED SHAFT
ALUMINUM TRUSS & STEEL POST

SHEET NO. S-8 OF 8 SHEETS

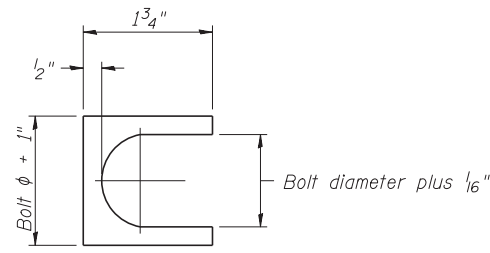
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	225
CONTRACT NO. 60P35				

ILLINOIS FED. AID PROJECT



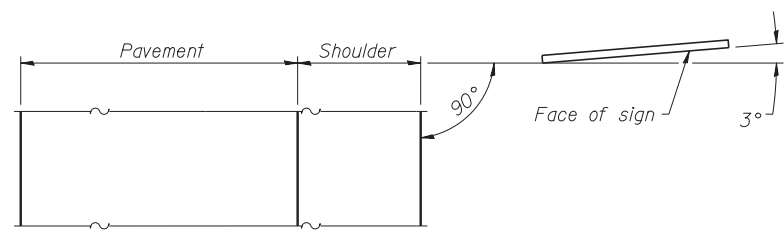
0.15W	2 spaces at 0.35W	0.15W	for 3 posts
0.125W	3 spaces at 0.25W	0.125W	for 4 posts
0.1W	4 spaces at 0.2W	0.1W	for 5 posts
0.1W	5 spaces at 0.16W	0.1W	for 6 posts
0.08W	6 spaces at 0.14W	0.08W	for 7 posts

ELEVATION

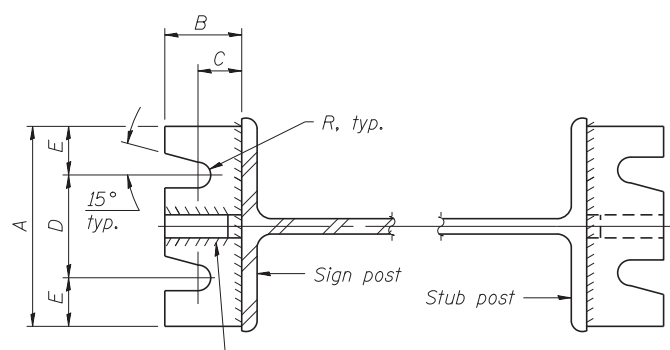


SHIM DETAIL

Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

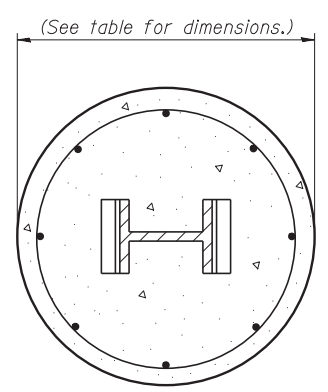


LOCATION SKETCH

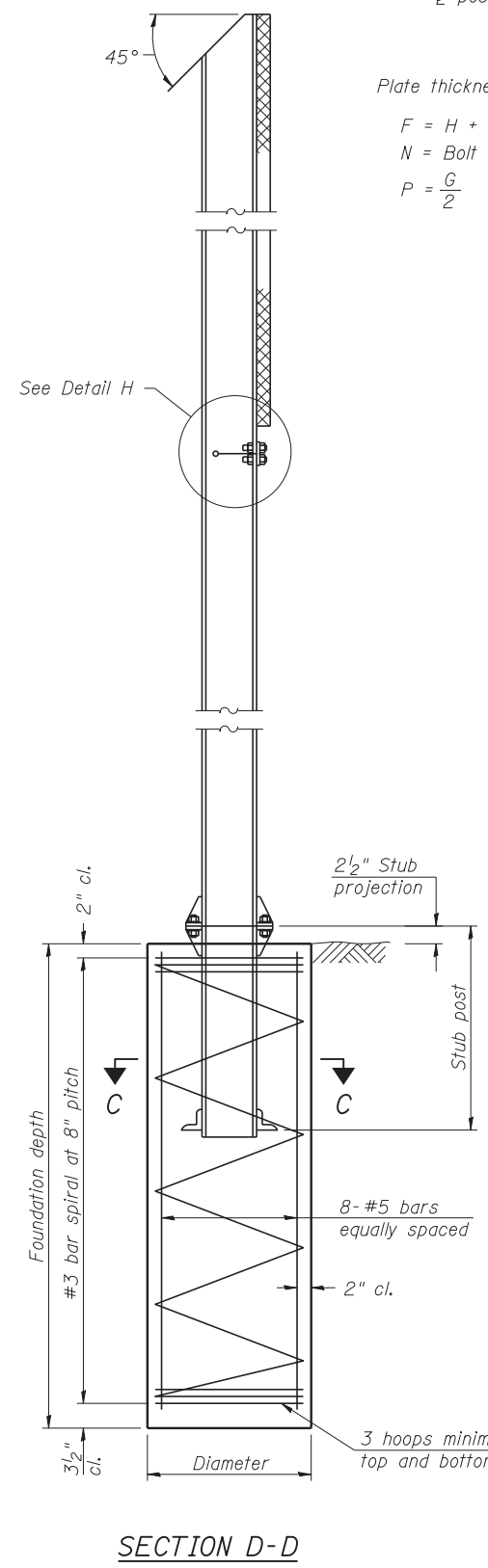


SECTION A-A

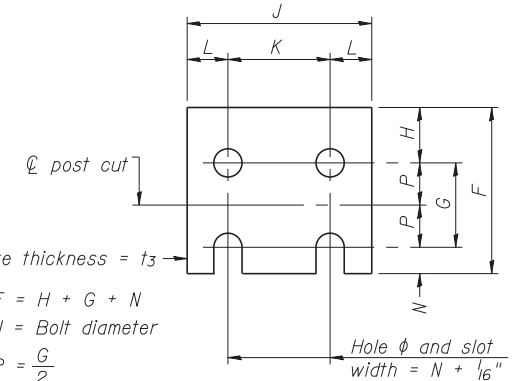
SECTION B-B



SECTION C-C

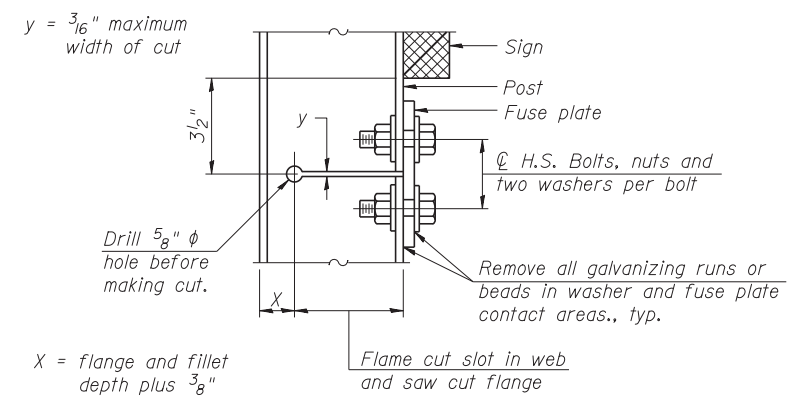


SECTION D-D

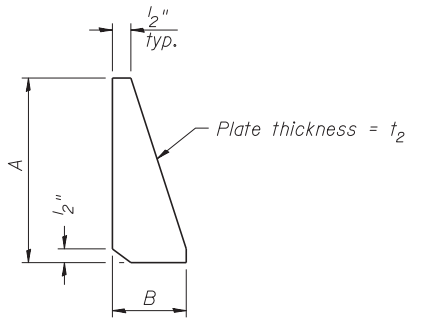


FUSE PLATE DETAIL
(Install with notches down.)

N = Bolt Diameter	G	H
1/2"	2"	1 1/8"
5/8"	2 1/4"	1 1/4"
3/4"	2 1/2"	1 3/8"
7/8"	2 3/4"	1 1/2"
1"	3"	1 5/8"
1 1/8"	3 1/4"	1 3/4"
1 1/4"	3 1/2"	1 7/8"



DETAIL H



STIFFENER PLATE DETAIL
Diameter

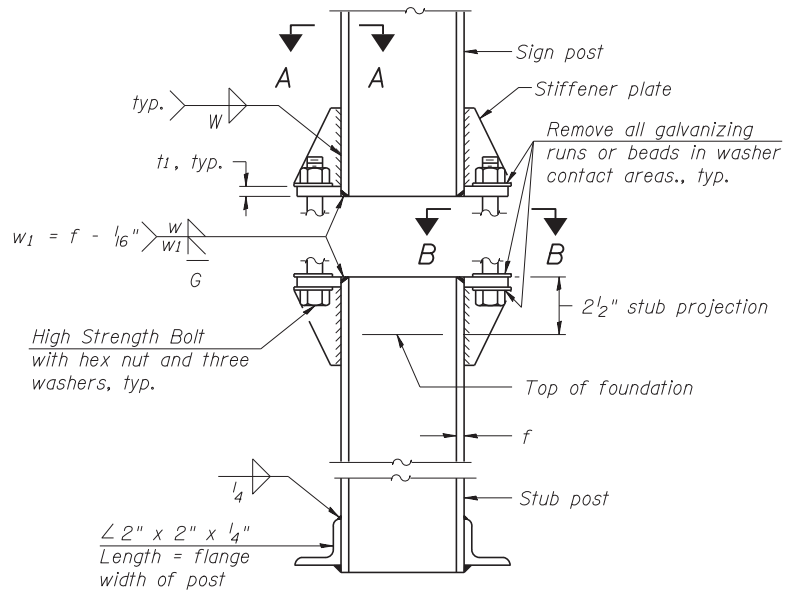
GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
Structural steel - 20,000 p.s.i.
Reinforcing steel - 20,000 p.s.i.
Concrete - 1,400 p.s.i.
Footing soil pressure - 2,000 p.s.f.

After fabrication, the post, fuse plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.



ELEVATION SIGN POST & STUB POST

BAW-A-1

1-20-11

(Sheet 1 of 2)



USER NAME = mikosir
PLOT SCALE = 10:1
PLOT DATE = 08-OCT-2012

DESIGNED -
DRAWN -
CHECKED -
DATE 10/19/12

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY WIDE FLANGE
STEEL SIGN POST DETAILS

SCALE: 1" = 10' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	226
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

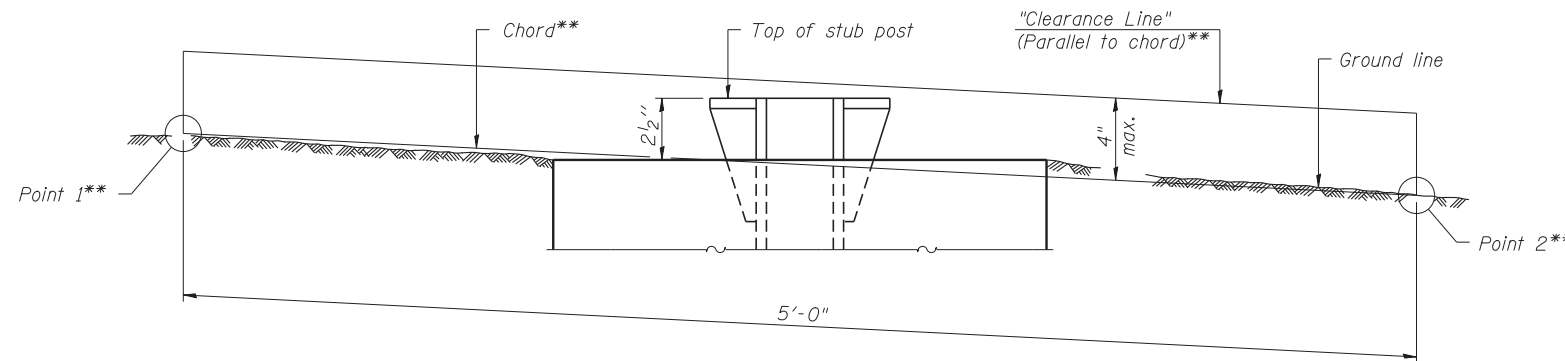
SGN-GM-01

Work this sheet with Base Sheet BAW-A-2.

POST	CONCRETE FOUNDATION TABLE							POST TO STUB POST CONNECTION DATA										FUSE PLATE DATA				
	Foundation			Reinforcement			Stub Post Length	Bolt Size	A	B	C	D	E	t ₁	t ₂	R	W	J	K	L	t ₃	
	Diameter	* Minimum Depth	Concrete (1) cu. yds.)	Vertical Bars Length	Bar Spirals Diameter	Length																lbs. (2)
W6x9	2'-0"	6'-0"	0.70	5'-9"	1'-8 1/2"	79'-0"	78	2'-3"	5/8" x 3/4"	6"	2 1/4"	1 1/4"	3 1/2"	1 1/4"	3/4"	1/2"	11/32"	1/4"	4"	2 1/4"	7/8"	1/4"
W6x15	2'-0"	6'-0"	0.70	5'-9"	1'-8 1/2"	79'-0"	78	2'-6"	5/8" x 3/4"	6"	2 1/4"	1 1/4"	3 1/2"	1 1/4"	3/4"	1/2"	11/32"	1/4"	6"	3 1/2"	1 1/4"	3/8"
W8x18	2'-0"	6'-0"	0.70	5'-9"	1'-8 1/2"	79'-0"	78	2'-6"	3/4" x 3/4"	6"	2 1/2"	1 3/8"	3 1/4"	1 3/8"	1"	1/2"	13/32"	5/16"	5 1/4"	2 3/4"	1 1/4"	3/8"
W10x22	2'-6"	6'-6"	1.18	6'-3"	2'-2 1/2"	105'-0"	92	3'-0"	3/4" x 3/4"	6"	2 1/2"	1 3/8"	3 1/4"	1 3/8"	1"	1/2"	13/32"	5/16"	5 3/4"	2 3/4"	1 1/2"	1/2"
W10x26	2'-6"	7'-0"	1.27	6'-9"	2'-2 1/2"	112'-0"	98	3'-0"	7/8" x 4"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	15/32"	3/8"	5 3/4"	2 3/4"	1 1/2"	5/8"
W12x26	2'-6"	7'-9"	1.41	7'-6"	2'-2 1/2"	119'-0"	107	3'-0"	7/8" x 4"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	15/32"	3/8"	6 1/2"	3 1/2"	1 1/2"	5/8"
W14x30	3'-0"	7'-3"	1.90	7'-0"	2'-8 1/2"	145'-0"	113	3'-0"	7/8" x 4"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	15/32"	3/8"	6 3/4"	3 1/2"	1 5/8"	1/2"
W14x38	3'-0"	8'-0"	2.09	7'-9"	2'-8 1/2"	153'-0"	122	3'-6"	1" x 4 1/2"	7 1/2"	3"	1 3/4"	4"	1 3/4"	1 1/4"	3/4"	17/32"	3/8"	6 3/4"	3 1/2"	1 5/8"	1/2"
W16x45	3'-0"	8'-6"	2.23	8'-3"	2'-8 1/2"	162'-0"	130	3'-6"	1" x 4 1/2"	7 1/2"	3"	1 3/4"	4"	1 3/4"	1 1/4"	3/4"	17/32"	3/8"	7"	3 1/2"	1 3/4"	1/2"

*Dimensional changes required for varying site conditions shall be approved by the Engineer.

POST	FUSE PLATE BOLT SIZE																				
	Sign Height																				
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	22'-0"	23'-0"	24'-0"
W6x9	1/2" x 1 1/2"	1/2" x 1 1/2"	1/2" x 1 1/2"	1/2" x 1 1/2"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
W6x15	1/2" x 1 3/4"	1/2" x 1 3/4"	1/2" x 1 3/4"	5/8" x 2"	5/8" x 2"	3/4" x 2"	3/4" x 2"	3/4" x 2"	3/4" x 2"	3/4" x 2"	—	—	—	—	—	—	—	—	—	—	—
W8x18	1/2" x 1 3/4"	1/2" x 1 3/4"	1/2" x 1 3/4"	1/2" x 1 3/4"	5/8" x 2"	5/8" x 2"	3/4" x 2"	3/4" x 2"	3/4" x 2"	3/4" x 2"	—	—	—	—	—	—	—	—	—	—	—
W10x22	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2"	5/8" x 2"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	—	—	—	—	—	—	—	—
W10x26	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2 1/4"	5/8" x 2 1/4"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	—	—	—	—	—	—	—
W12x26	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2 1/4"	5/8" x 2 1/4"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	—	—	—	—	—	—
W14x30	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2"	5/8" x 2"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	—	—	—	—	—
W14x38	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2 1/4"	5/8" x 2 1/4"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	3/4" x 2 1/2"	7/8" x 2 1/2"	7/8" x 2 1/2"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"
W16x45	—	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2 1/4"	5/8" x 2 1/4"	5/8" x 2 1/4"	3/4" x 2 1/2"	3/4" x 2 1/2"	7/8" x 2 1/2"	7/8" x 2 1/2"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"



ELEVATION
GROUND LINE & STUB POST

** For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

- (1) Quantity includes all concrete necessary for one foundation.
- (2) Includes reinforcement bars and spiral hooping for one foundation.

BAW-A-2

1-20-11

(Sheet 2 of 2)

SGN-GM-02

Globetrotters* Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, IL 60606	USER NAME = micos1r	DESIGNED	REVISED -
	PLOT SCALE = 10:1	DRAWN	REVISED -
	PLOT DATE = 08-OCT-2012	CHECKED	REVISED -
	DATE = 10/19/12	DATE	REVISED -







STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

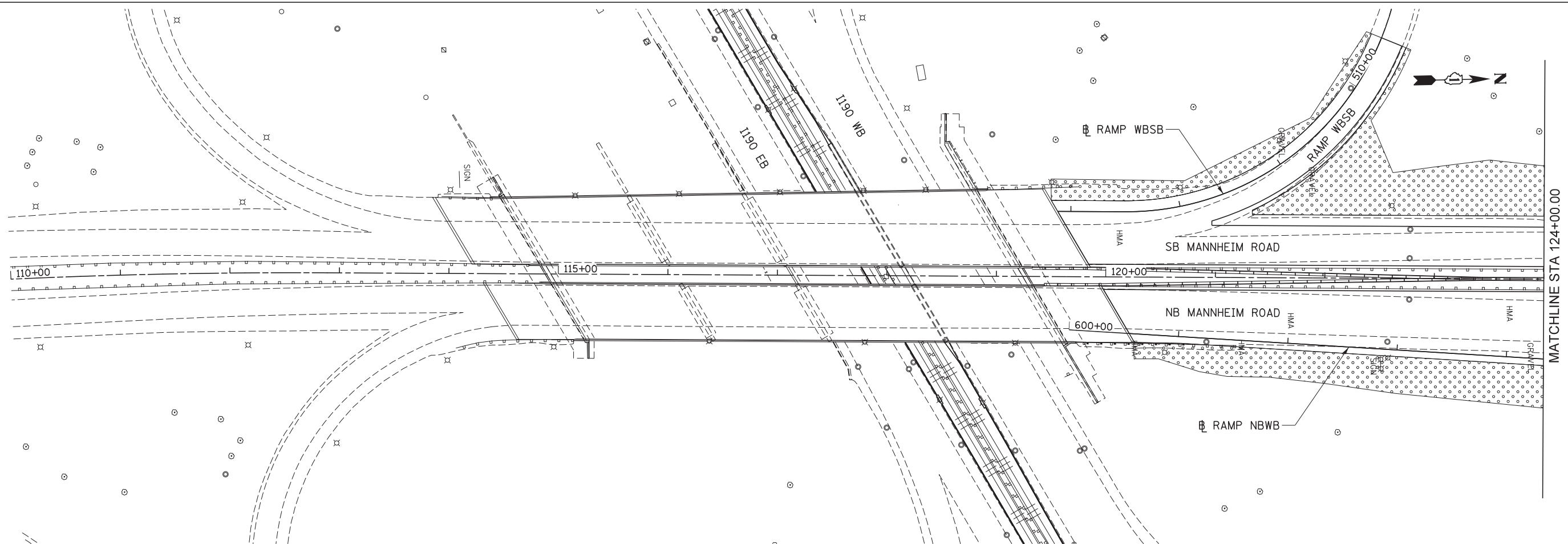
BREAK-AWAY WIDE FLANGE
STEEL SIGN POST TABLES

SCALE: 1" = 10' SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	227
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

LANDSCAPING LEGEND

- | | | | |
|---|--|---|--|
|  | TOPSOIL FURNISH AND PLACE, 6"
SEEDING, CLASS 2A
EROSION CONTROL BLANKET |  | TOPSOIL FURNISH AND PLACE, 6"
SEEDING, CLASS 3
TURF REINFORCEMENT MATTING |
|  | TOPSOIL FURNISH AND PLACE, 24"
SEEDING, CLASS 2A
EROSION CONTROL BLANKET |  | TOPSOIL FURNISH AND PLACE, 12"
COMPOST FURNISH AND PLACE, 2"
VINE (VIRGINIA CREEPER), 1-GALLON POT |
|  | TOPSOIL FURNISH AND PLACE, 6"
SEEDING, CLASS 2A
TURF REINFORCEMENT MATTING |  | TREE TRUNK PROTECTION |
| | |  | TREE REMOVAL |



MATCHLINE STA 124+00.00

LND-1



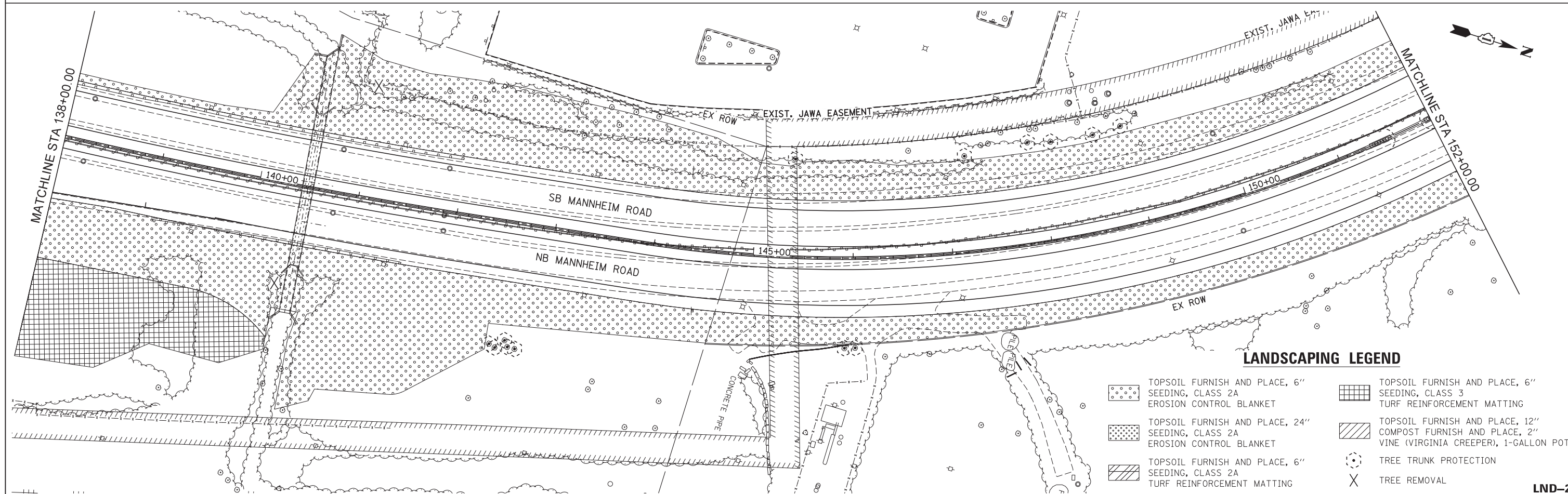
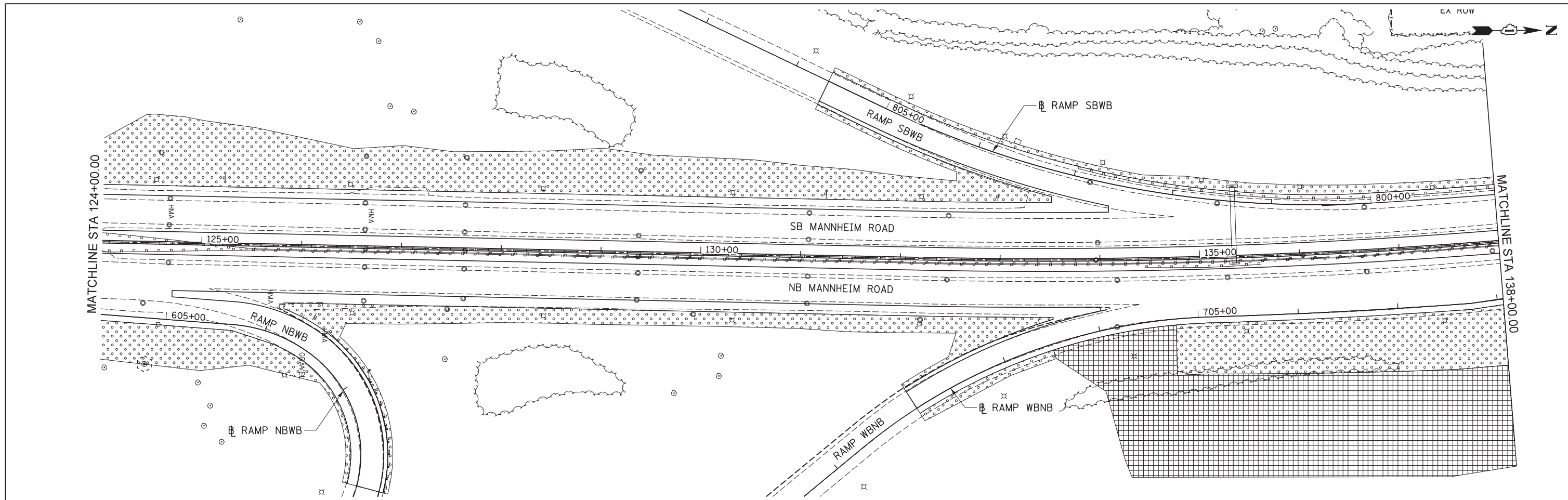
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	DRAWN KJC	REVISED -
PLOT SCALE = 50:1	CHECKED LVA	REVISED -
PLOT DATE = 09-OCT-2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN
MANNHEIM ROAD

SCALE: 1" = 50' SHEET NO. 1 OF 5 SHEETS STA. BOP TO STA. 124+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	228
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



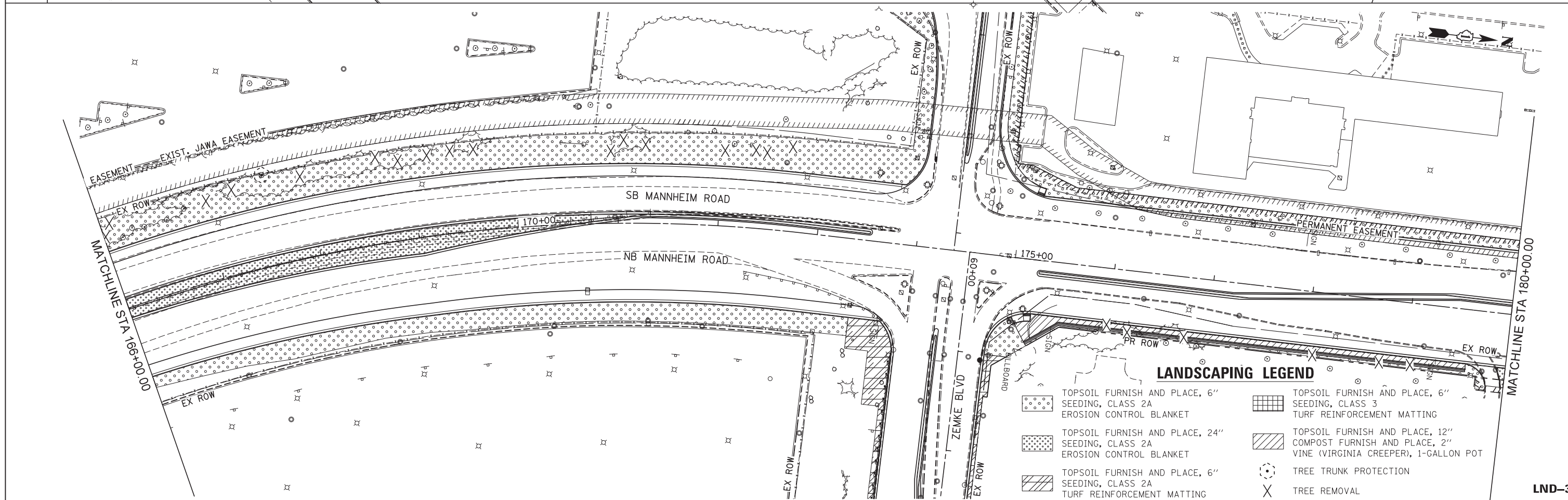
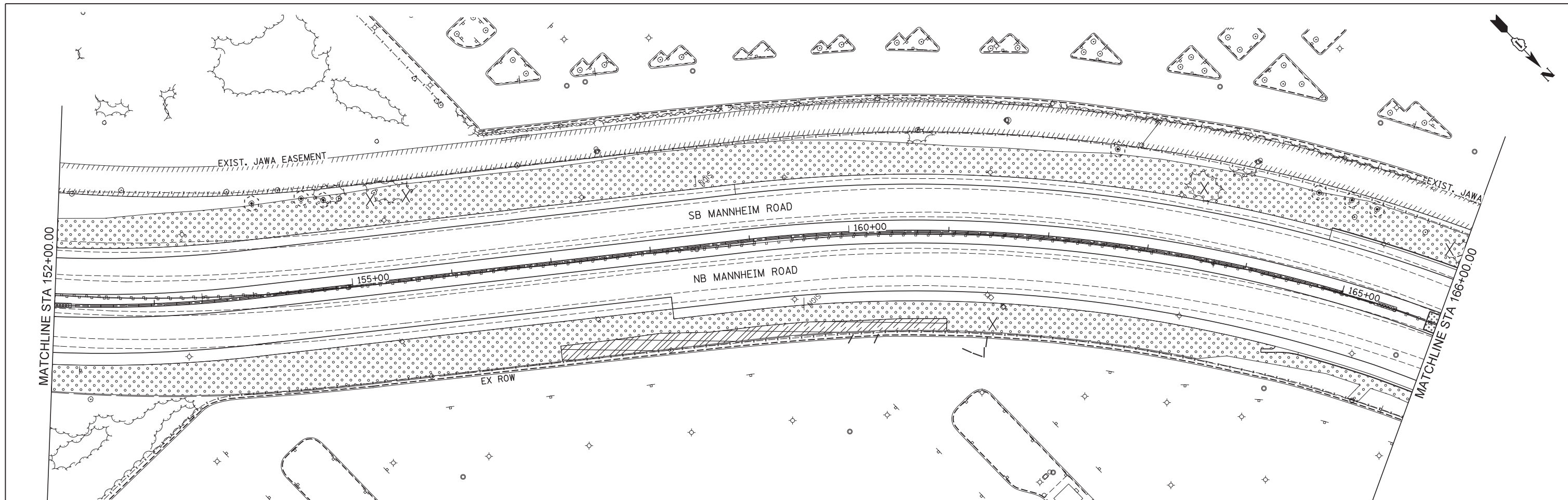
LANDSCAPING LEGEND

	TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 2A EROSION CONTROL BLANKET		TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 3 TURF REINFORCEMENT MATTING
	TOPSOIL FURNISH AND PLACE, 24" SEEDING, CLASS 2A EROSION CONTROL BLANKET		TOPSOIL FURNISH AND PLACE, 12" COMPOST FURNISH AND PLACE, 2" VINE (VIRGINIA CREEPER), 1-GALLON POT
	TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 2A TURF REINFORCEMENT MATTING		TREE TRUNK PROTECTION
			TREE REMOVAL

	USER NAME = mksosr	DESIGNED KJC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LANDSCAPING PLAN MANNHEIM ROAD	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 50:1	DRAWN KJC	REVISED -			330	0105-WRS	COOK	537	229
	PLOT DATE = 09-OCT-2012	CHECKED LVA	REVISED -			CONTRACT NO. 60P35				
	DATE 10/19/2012	REVISED -		SCALE: 1" = 50'	SHEET NO. 2 OF 5 SHEETS	STA. 124+00.00 TO STA. 152+00.00	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP\dms47849\0160P35-sh1-Indsep_02.dgn

LND-2



LANDSCAPING LEGEND

TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 2A EROSION CONTROL BLANKET	TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 3 TURF REINFORCEMENT MATTING
TOPSOIL FURNISH AND PLACE, 24" SEEDING, CLASS 2A EROSION CONTROL BLANKET	TOPSOIL FURNISH AND PLACE, 12" COMPOST FURNISH AND PLACE, 2" VINE (VIRGINIA CREEPER), 1-GALLON POT
TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 2A TURF REINFORCEMENT MATTING	TREE TRUNK PROTECTION
	TREE REMOVAL



USER NAME = micosir	DESIGNED KJC	REVISED -
PLOT SCALE = 50:1	DRAWN KJC	REVISED -
PLOT DATE = 09-OCT-2012	CHECKED LVA	REVISED -
	DATE 10/19/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LANDSCAPING PLAN
MANNHEIM ROAD**

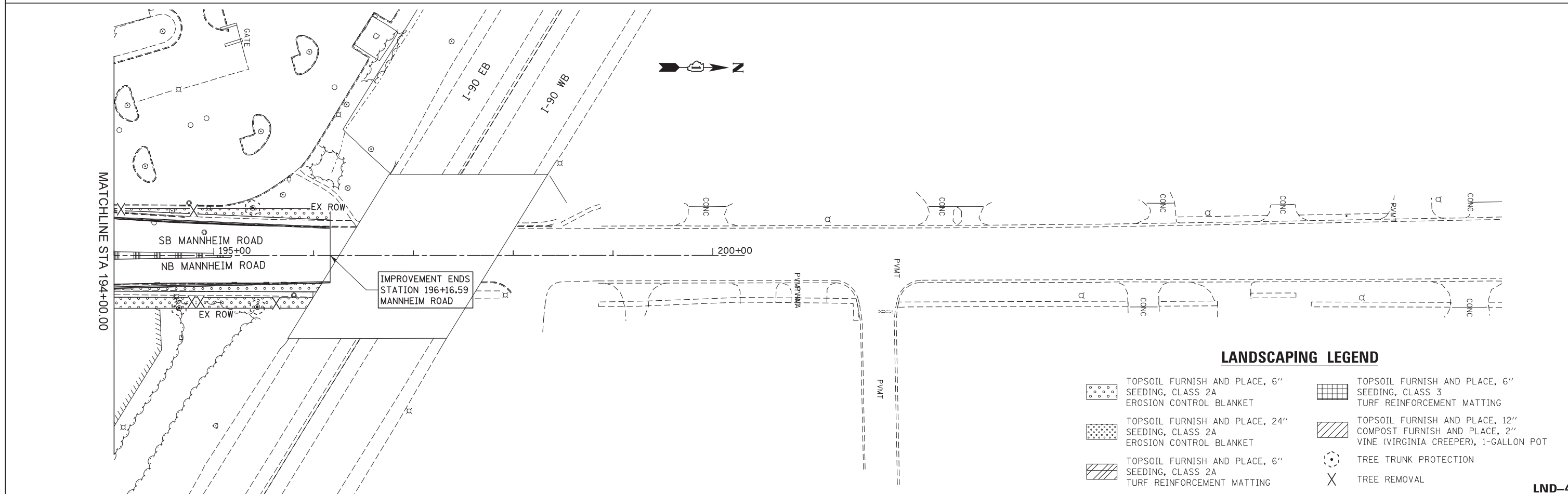
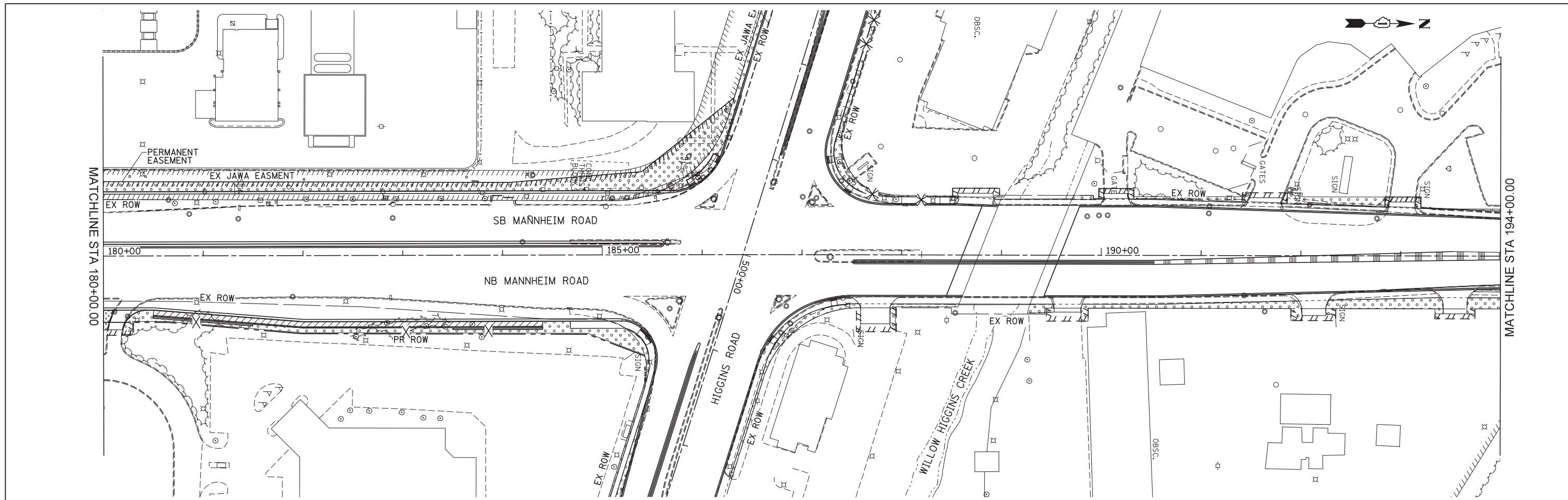
SCALE: 1" = 50' SHEET NO. 3 OF 5 SHEETS STA. 152+00.00 TO STA. 180+00.00

F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 230
				CONTRACT NO. 60P35

ILLINOIS FED. AID PROJECT

LN2-3

FILE NAME = IP_PWP\dms47849\DJ60P35-sh1-Indsep_03.dgn



LANDSCAPING LEGEND

- TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 2A EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 24" SEEDING, CLASS 2A EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 2A TURF REINFORCEMENT MATTING
- TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 3 TURF REINFORCEMENT MATTING
- TOPSOIL FURNISH AND PLACE, 12" COMPOST FURNISH AND PLACE, 2" VINE (VIRGINIA CREEPER), 1-GALLON POT
- TREE TRUNK PROTECTION
- TREE REMOVAL

LND-4



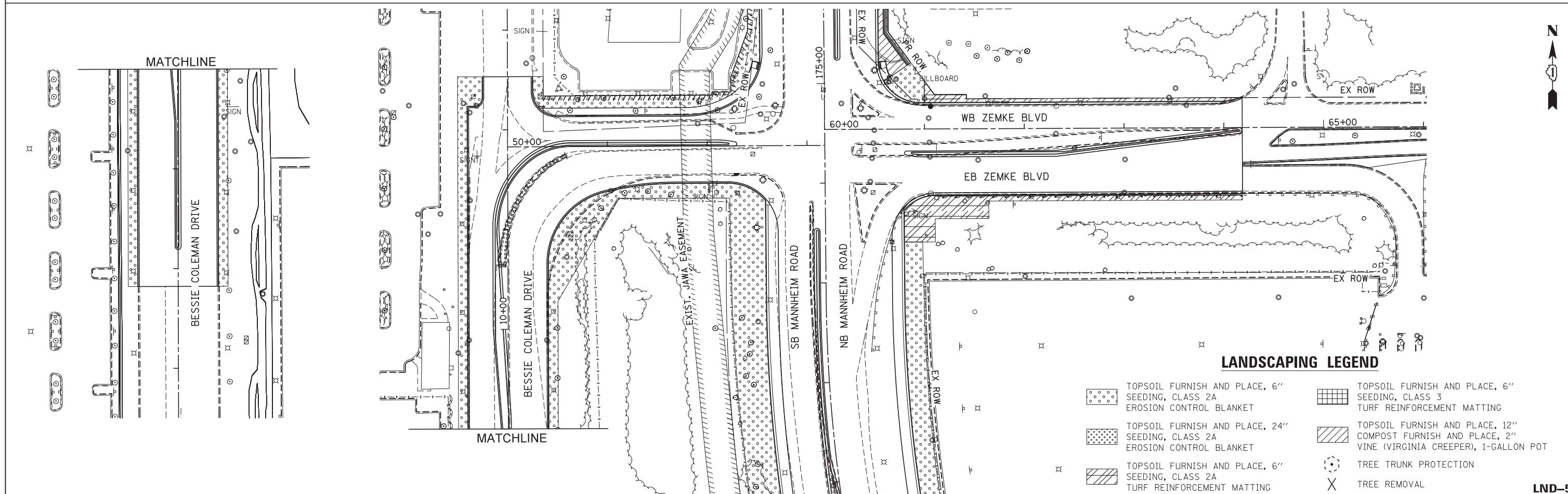
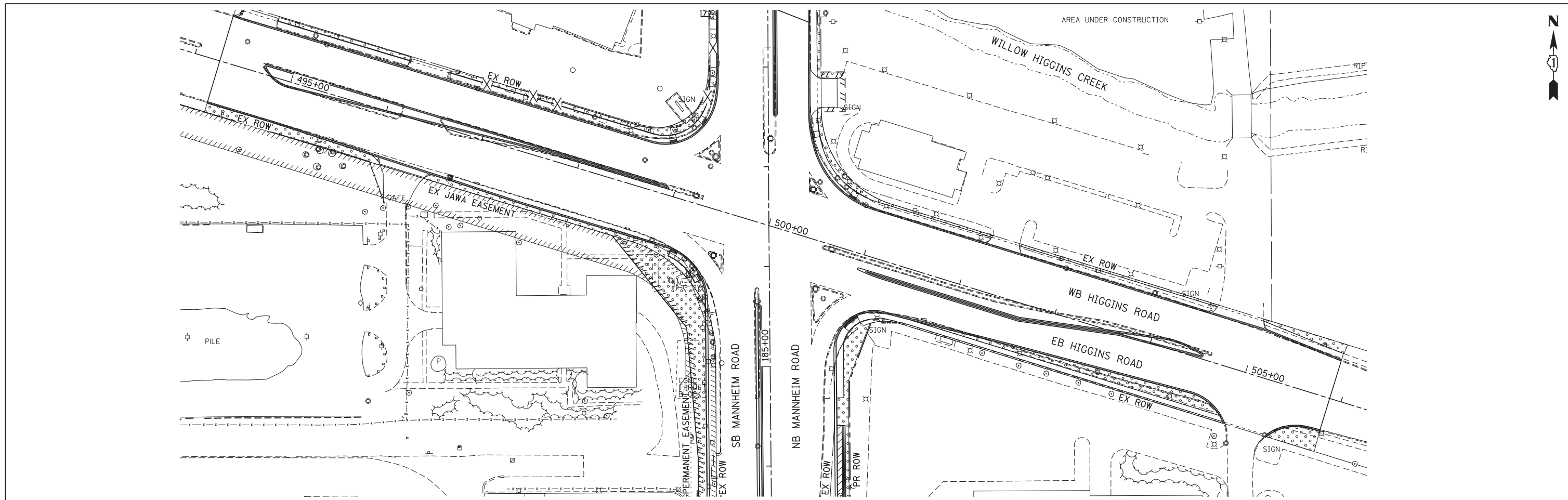
USER NAME = mkosir	DESIGNED KJC	REVISED -
	DRAWN KJC	REVISED -
PLOT SCALE = 50:1	CHECKED LVA	REVISED -
PLOT DATE = 09-OCT-2012	DATE 10/19/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LANDSCAPING PLAN
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. 4 OF 5 SHEETS STA. 180+00.00 TO STA. EOP

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	231
CONTRACT NO. 60P35				



LANDSCAPING LEGEND

- TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 2A
 EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 3
 TURF REINFORCEMENT MATTING
- TOPSOIL FURNISH AND PLACE, 24" SEEDING, CLASS 2A
 EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 12" SEEDING, CLASS 2A
 EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 6" SEEDING, CLASS 2A
 TURF REINFORCEMENT MATTING
- TREE TRUNK PROTECTION
 TREE REMOVAL

LND-5



USER NAME = mkostr
 PLOT SCALE = 50:1
 PLOT DATE = 09-OCT-2012

DESIGNED KJC
 DRAWN KJC
 CHECKED LVA
 DATE 10/19/2012

REVISED -
 REVISED -
 REVISED -
 REVISED -

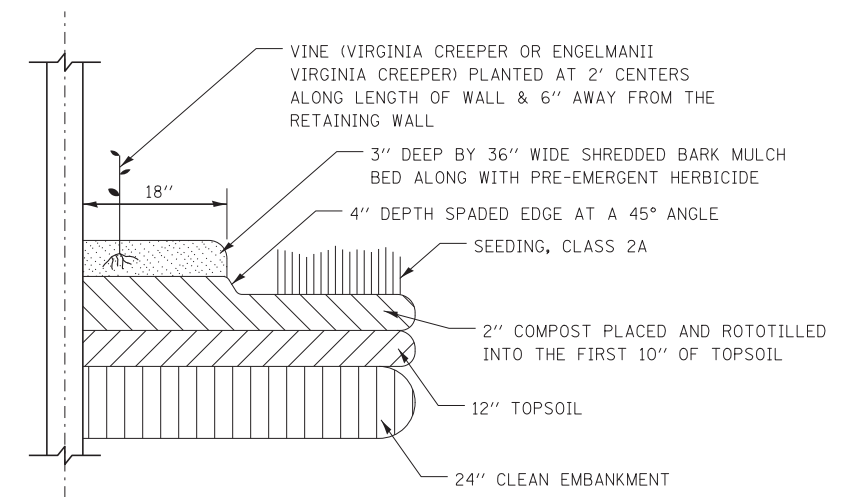
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**LANDSCAPING PLAN
 HIGGINS ROAD AND ZEMKE BOULEVARD**

SCALE: 1" = 50' SHEET NO. 5 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	232
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

VINE PLANTING DETAIL



NOTES:

1. SEE LANDSCAPING PLANS FOR SPECIFIC LOCATION OF VINES.
2. COMPOST AND TOPSOIL SHALL BE THOROUGHLY ROTOTILLED TO A DEPTH OF 10" PRIOR TO PLANTING.
3. THE CONTRACTOR SHALL ORDER MATERIAL FOR PARTHENOCISSUS SP. (VIRGINIA CREEPER) VINES IMMEDIATELY FOLLOWING EXECUTION OF THE CONTRACT TO ASSURE AVAILABILITY OF THE PLANT MATERIAL FOR SPRING PLANTING AT THE CONCLUSION OF THE CONTRACT.
4. MULCH BED SHALL BE PLACED OVER ROTOTILLED COMPOST/TOPSOIL AS SHOWN IN VINE PLANTING DETAIL AND ACCORDING TO IDOT STANDARD SPECIFICATION 253.11 EXCEPT THAT NO WEED BARRIER FABRIC IS REQUIRED. COST OF MULCH COVER IS INCLUDED WITH PAYMENT FOR "VINE-PARTHENOCISSUS QUINQUEFOLIA ENGELMANII (ENGELMANII VIRGINIA CREEPER), 1-GALLON POT."
5. PRE-EMERGENT HERBICIDE SHALL BE PLACED IN MULCHED BEDS ACCORDING TO THE SPECIAL PROVISIONS.

LND-6

	USER NAME = mkosir	DESIGNED KJC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LANDSCAPING DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN KJC	REVISED -		330	0105-WRS	COOK	537	233			
	PLOT SCALE = 20:1	CHECKED LVA	REVISED -		CONTRACT NO. 60P35							
	PLOT DATE = 09-OCT-2012	DATE 10/19/2012	REVISED -		SCALE: N.T.S.	SHEET NO. 6 OF 6 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL SUMMARY OF QUANTITIES

NO.	CODE	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	MANNHEIM RD / ZEMKE BLVD	MANNHEIM RD / HIGGINS RD	MANNHEIM RD / PATTON DR	HIGGINS RD (INTERCONNECT)
1	72000100	SIGN PANEL - TYPE 1	SQ FT	151.50	76.50	60.00	15.00	0
2	72000200	SIGN PANEL - TYPE 2	SQ FT	58.00	33.00	0.00	25.00	0
3	80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	1	0	0	1	0
4	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	3,928	882	1403	834	809
5	81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	182	61	77	44	0
6	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	283	127	50	106	0
7	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1,810	619	907	284	0
8	81400100	HANDHOLE	EACH	18	5	5	6	2
9	81400200	HEAVY-DUTY HANDHOLE	EACH	10	4	4	2	0
10	81400300	DOUBLE HANDHOLE	EACH	6	2	3	1	0
11	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2	0	0	1	1
12	86400100	TRANSCIVER - FIBER OPTIC	EACH	2	1	1	0	0
13	87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	4,213	0	0	0	4,213
14	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 2C	FOOT	2,079	234	1845	0	0
15	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C	FOOT	3,344	248	3096	0	0
16	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 5C	FOOT	9,823	4095	3979	1749	0
17	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 7C	FOOT	3,093	1201	1199	693	0
18	87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	14,544	5319	7331	1894	0
19	87301800	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 4 2 C	FOOT	279	0	0	279	0
20	87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	301	190	111	0	0
21	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	4,221	1562	1816	843	0
22	87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1	0	1	0	0
23	87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3	0	1	2	0
24	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	8	4	2	2	0
25	87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1	0	0	1	0
26	87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1	0	0	1	0
27	87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1	0	0	1	0
28	87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1	0	0	1	0
29	87700310	STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1	1	0	0	0
30	87700330	STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.	EACH	1	0	1	0	0
31	87700400	STEEL MAST ARM ASSEMBLY AND POLE, 60 FT.	EACH	1	0	1	0	0
32	87702960	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	2	2	0	0	0
33	87703010	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 56 FT.	EACH	1	0	1	0	0
34	87703030	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 60 FT.	EACH	1	1	0	0	0
35	87703040	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 62 FT.	EACH	1	0	1	0	0

NO.	CODE	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	MANNHEIM RD / ZEMKE BLVD	MANNHEIM RD / HIGGINS RD	MANNHEIM RD / PATTON DR	HIGGINS RD (INTERCONNECT)
36	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	56	20	20	16	0
37	87800150	CONCRETE FOUNDATION, TYPE C	FOOT	12	4	4	4	0
38	87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10	0	0	10	0
39	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	74	41	0	33	0
40	87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	105	21	84	0	0
41	87900200	DRILL EXISTING HANDHOLE	EACH	1	0	0	0	1
42	88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	31	12	11	8	0
43	88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3	0	1	2	0
44	88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3	0	1	2	0
45	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	7	2	3	2	0
46	88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3	2	1	0	0
47	88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2	2	0	0	0
48	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	9	2	7	0	0
49	88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1	0	1	0	0
50	88200210	TRAFFIC SIGNAL BACKPLATE LOUVERED, ALUMINUM	EACH	38	14	14	10	0
51	88500100	INDUCTIVE LOOP DETECTOR	EACH	47	19	21	7	0
52	88600100	DETECTOR LOOP, TYPE I	FOOT	380	0	0	380	0
53	88600700	PREFORMED DETECTOR LOOP	FOOT	2463	1443	1020	0	0
54	88700200	LIGHT DETECTOR	EACH	4	0	4	0	0
55	88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	0	1	0	0
56	88800100	PEDESTRIAN PUSH-BUTTON	EACH	10	2	8	0	0
57	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	2	1	1	0	0
58	89100400	ILLUMINATED SIGN, LED	EACH	4	0	4	0	0
59	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2442	0	0	0	2442
60	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	3	1	1	1	0
61	89502380	REMOVE EXISTING HANDHOLE	EACH	45	12	21	8	4
62	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	14	7	7	0	0
63	X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3C	FOOT	1002	0	1002	0	0
64	X8050095	SERVICE INSTALLATION (SPECIAL)	EACH	2	1	1	0	0
65	X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	2	1	0	1	0
66	X8570231	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1	0	1	0	0
67	X8600105	MASTER CONTROLLER (SPECIAL)	EACH	1	0	0	0	1
68	X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	3	1	1	1	0
69	X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62 5/125, MM12F SM24F	FOOT	4213	0	0	0	4213
70	Z0033056	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1	0	0	0	1
71	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	2	1	1	0	0
72	-	THERMAL VEHICLE DETECTION SYSTEM	EACH	1	0	0	1	0

TS-1



USER NAME = rmanucod	DESIGNED JA	REVISED -
PLOT SCALE = *SCALE*	DRAWN RM	REVISED -
PLOT DATE = 11/30/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL
SUMMARY OF QUANTITIES
US RTE 12-45 (MANNHEIM RD)**

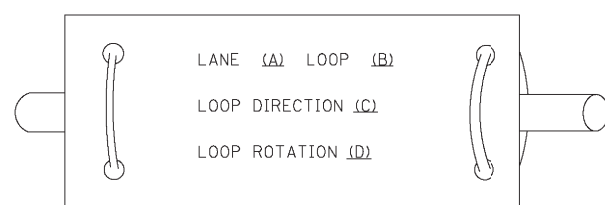
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	234
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO. OF SHEETS STA. TO STA.

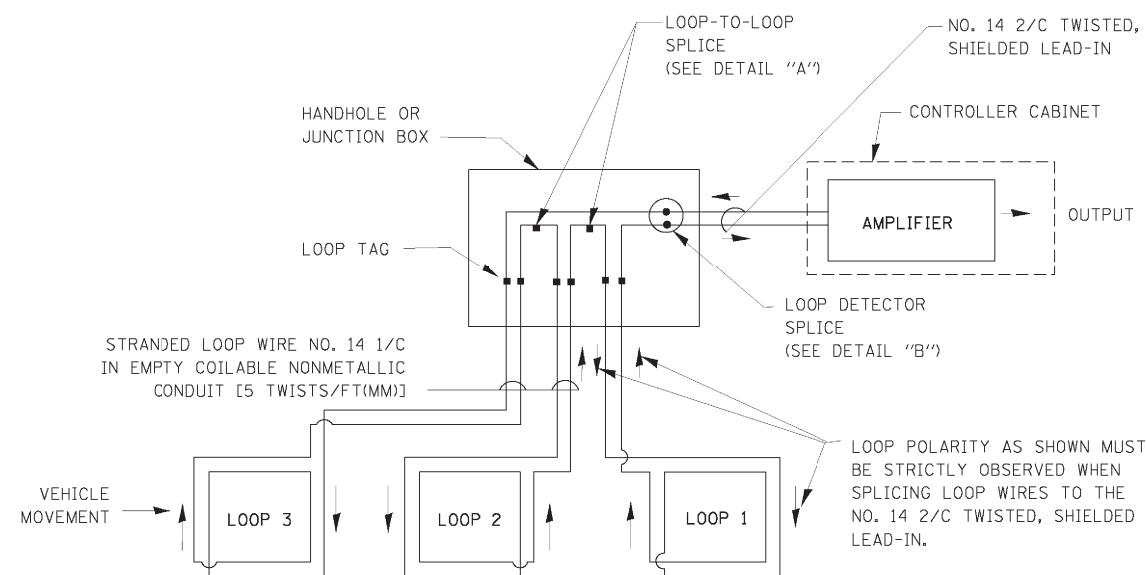
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

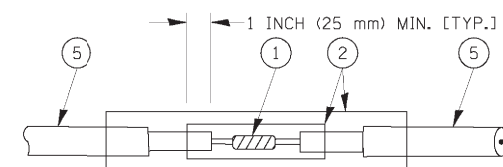


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

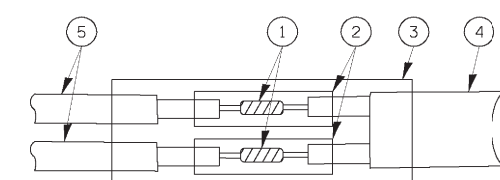


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

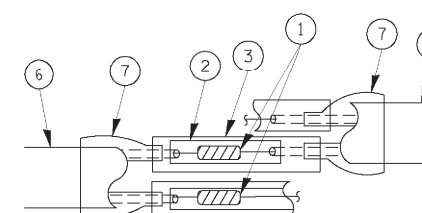


DETAIL "A"
LOOP-TO-LOOP SPLICE

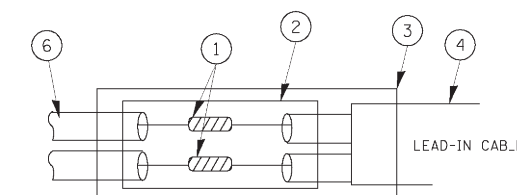


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

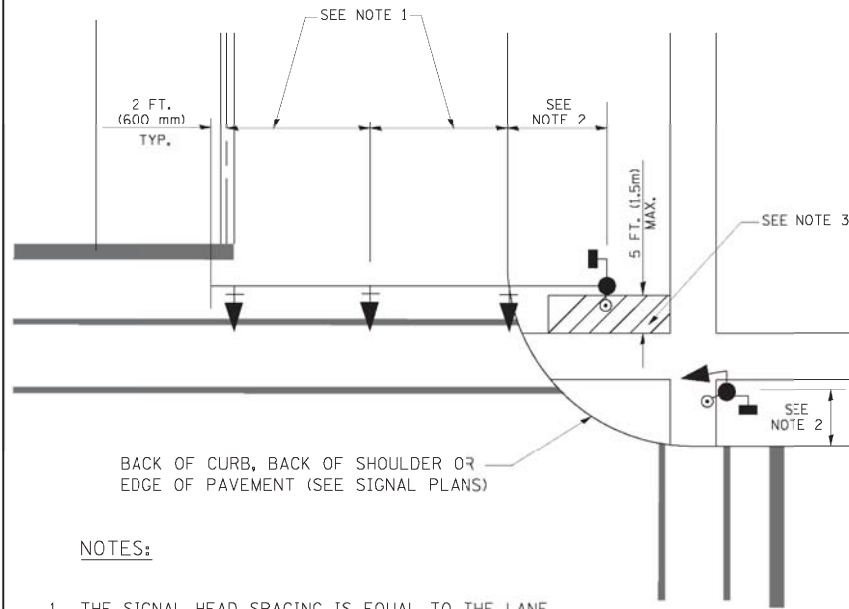
LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PREFORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

TS-2

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

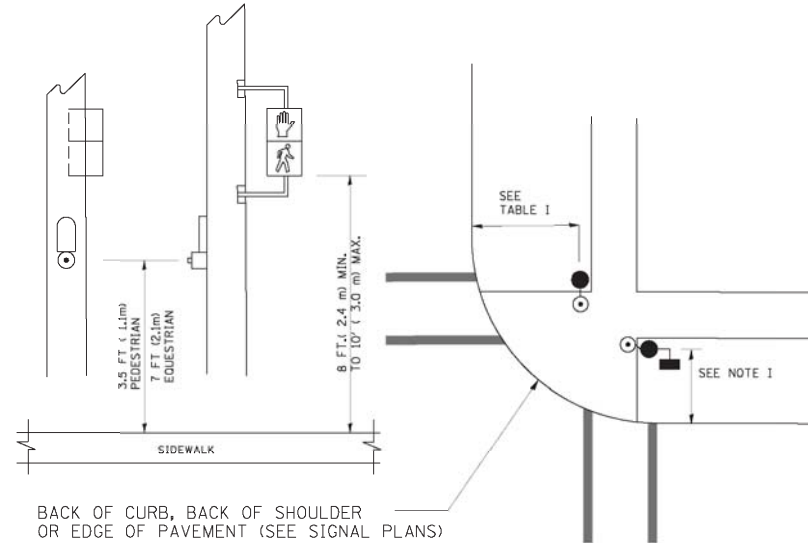
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

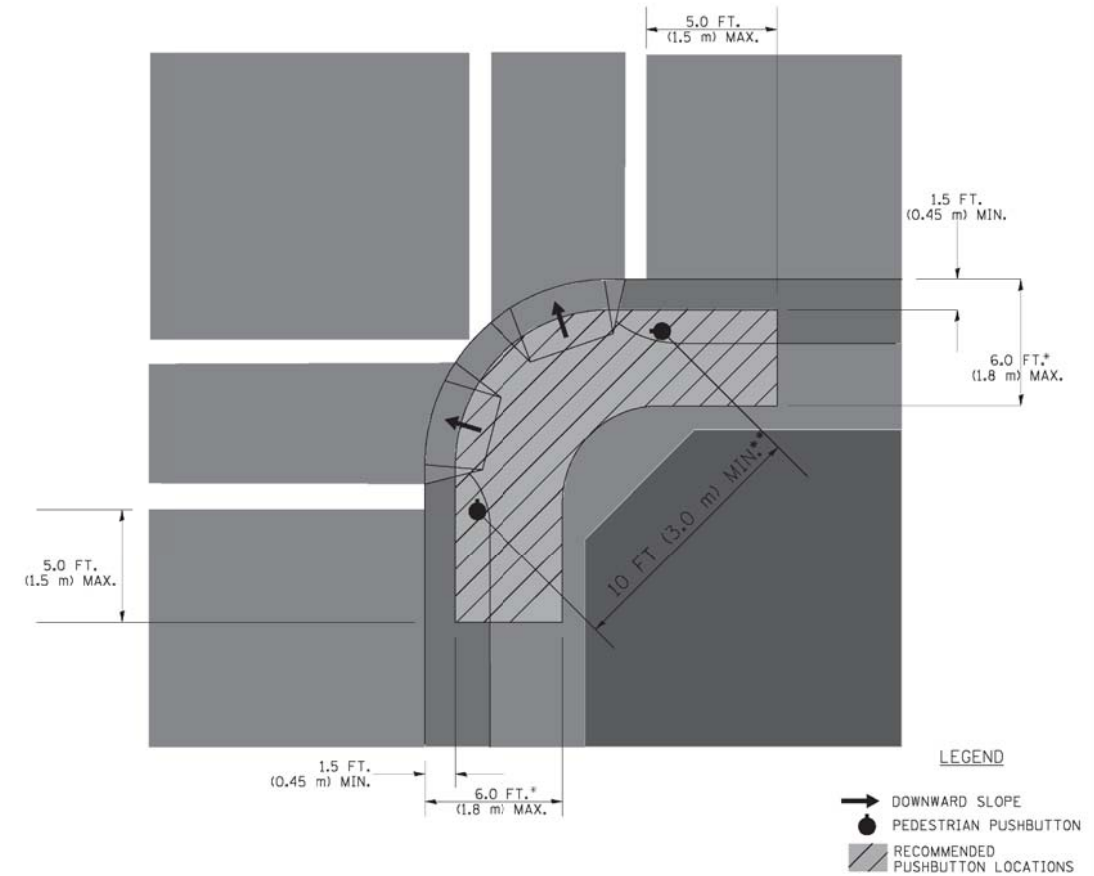
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



LEGEND

- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

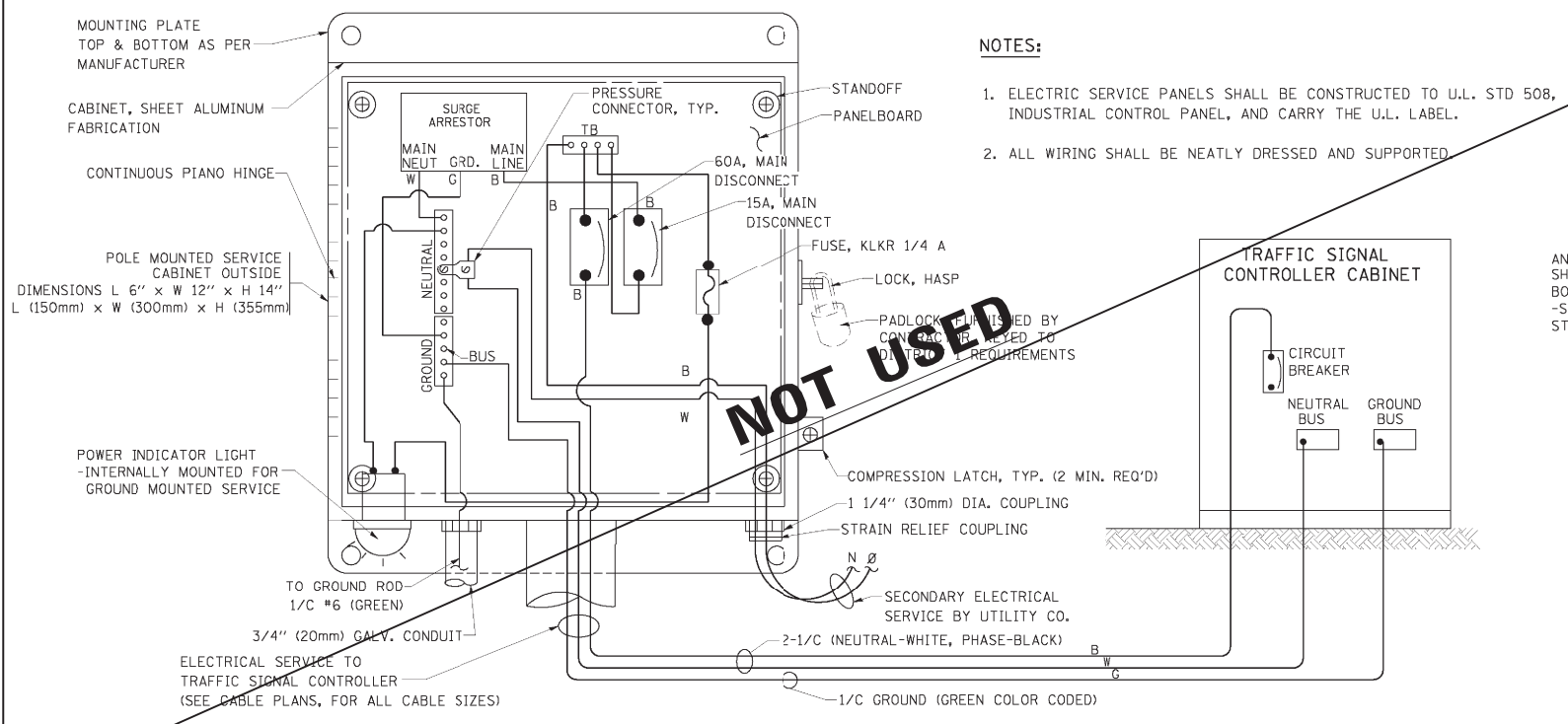
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

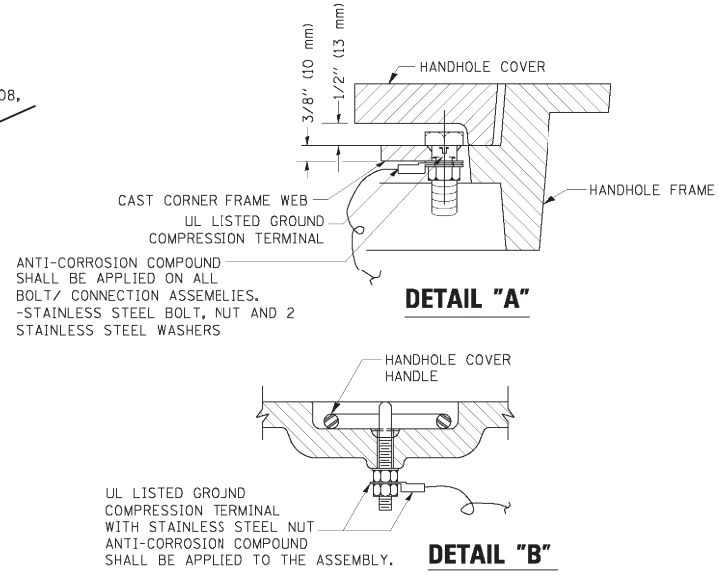
NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.



NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



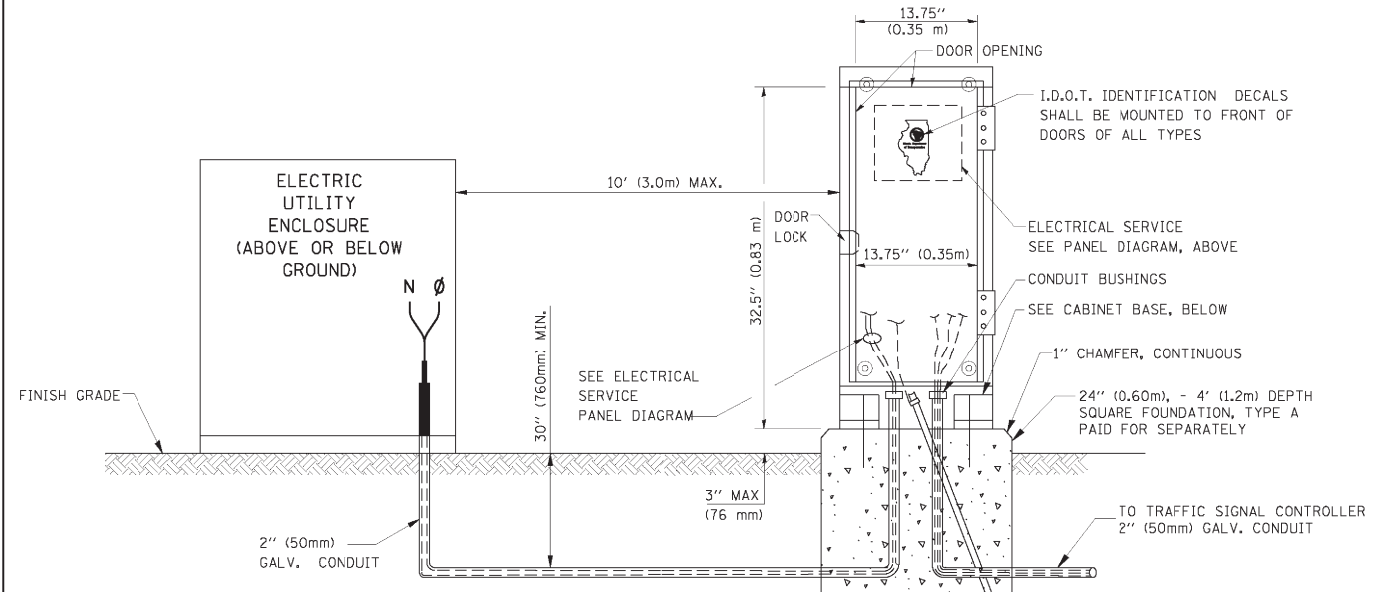
NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

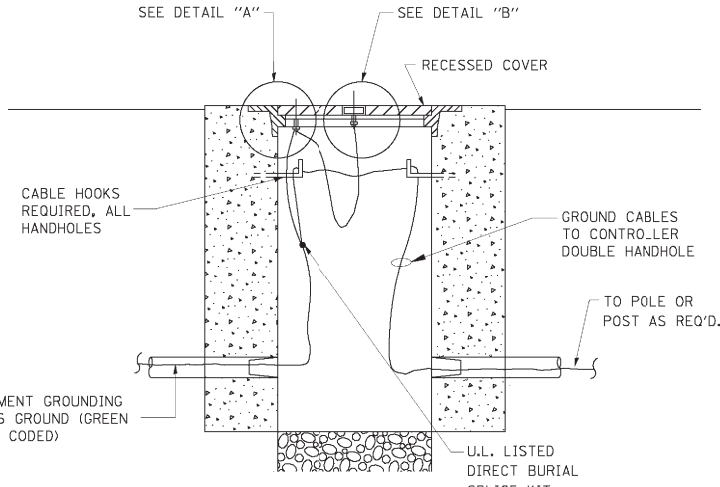
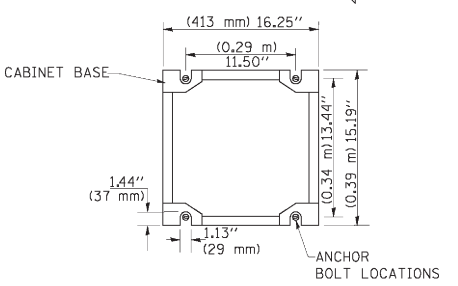
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)

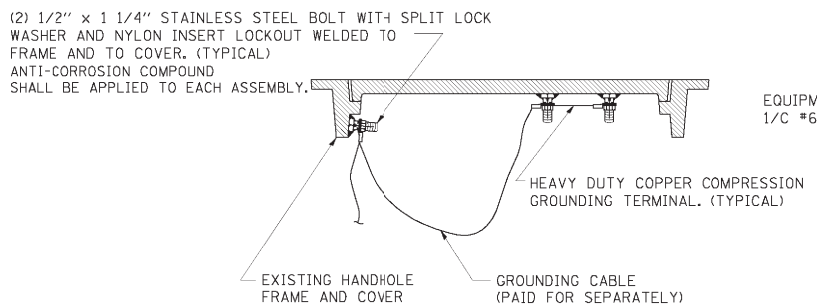


SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)

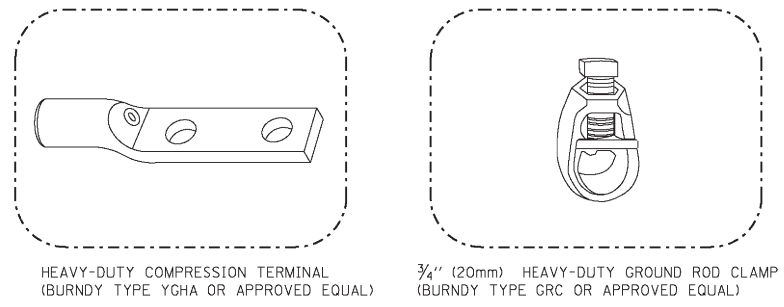
CABINET - BASE BOLT PATTERN
(NOT TO SCALE)



HANDHOLE COVER & FRAME - GROUNDING DETAIL
(NOT TO SCALE)

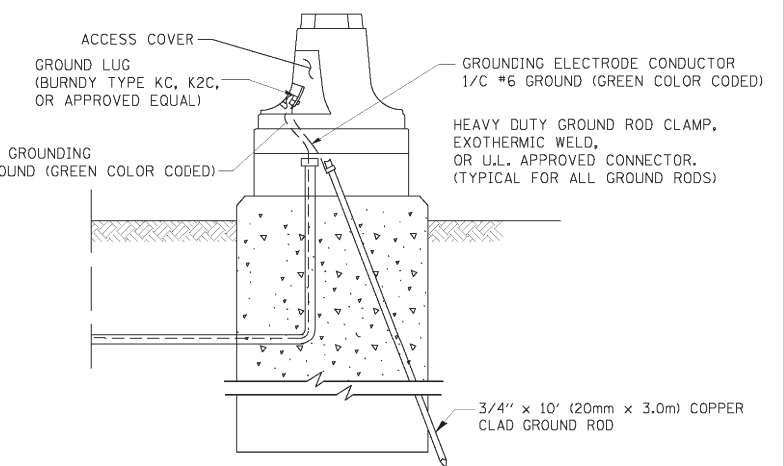


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
(NOT TO SCALE)

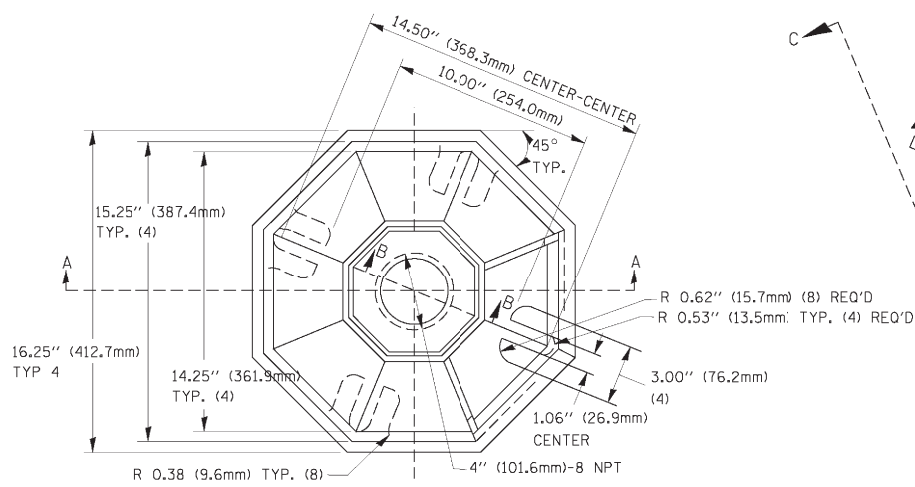


NOTES:

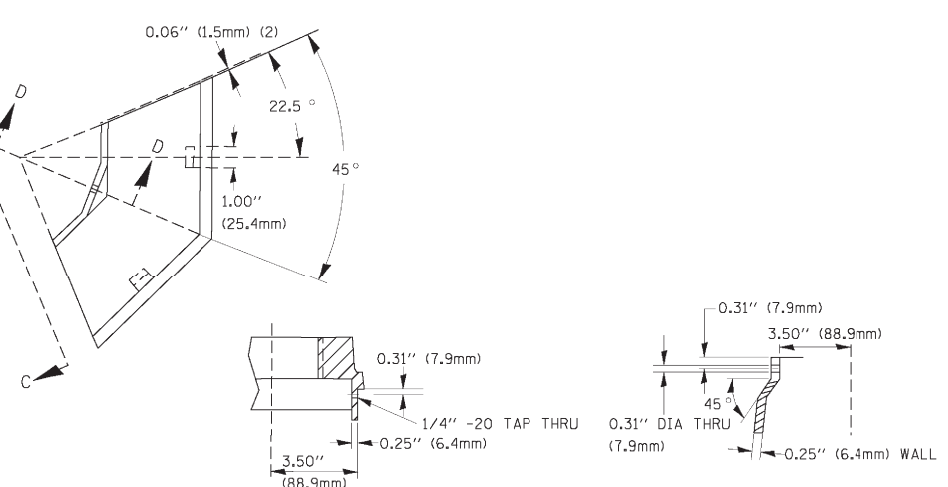
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST-GROUNDING DETAIL
(NOT TO SCALE)

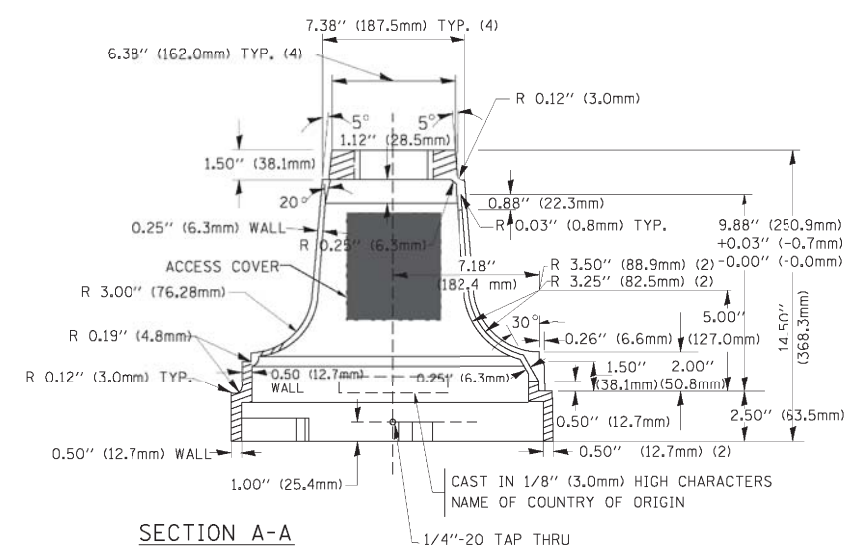


TOP VIEW

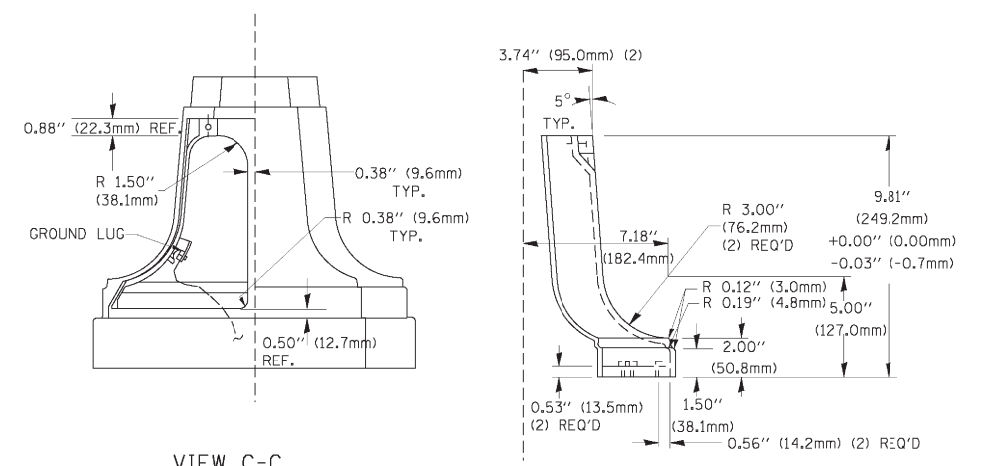


SECTION B-B

SECTION D-D

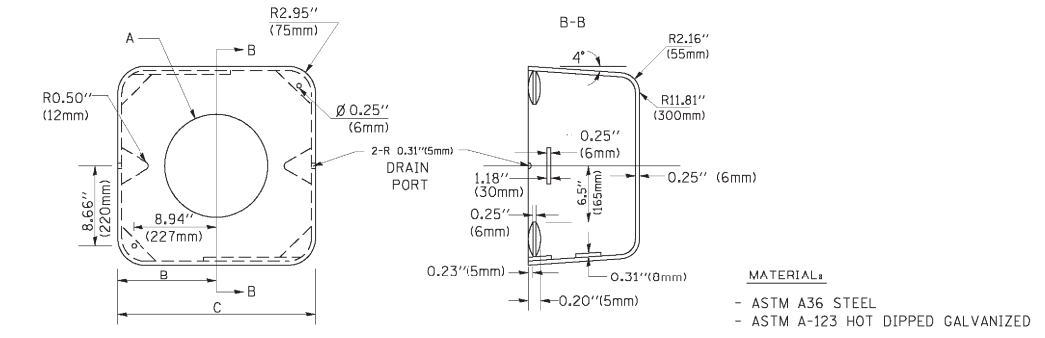


SECTION A-A



VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



SHROUD

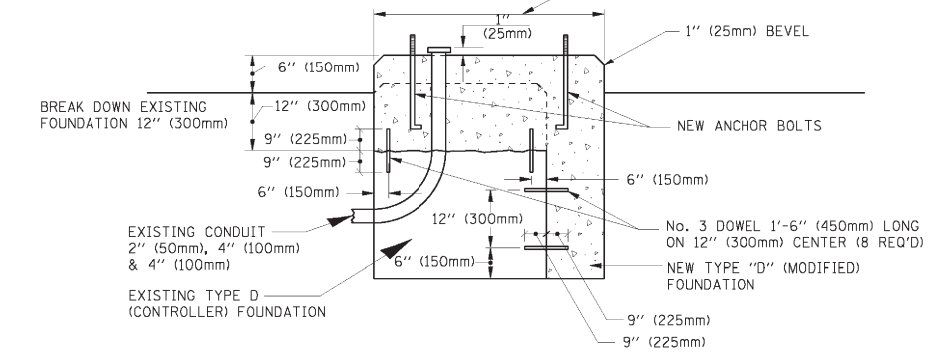
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\"(241mm)	19\"(483mm)	7\"(178mm) - 12\"(300mm)	53 lbs (24kg)
VARIABLES	10.75\"(273mm)	21.5\"(546mm)	7\"(178mm) - 12\"(300mm)	68 lbs (31 kg)
VARIABLES	13.0\"(330mm)	26\"(660mm)	7\"(178mm) - 12\"(300mm)	81 lbs (37 kg)
VARIABLES	18.5\"(470mm)	37\"(940mm)	7\"(178mm) - 12\"(300mm)	126 lbs (57 kg)

NOTES:

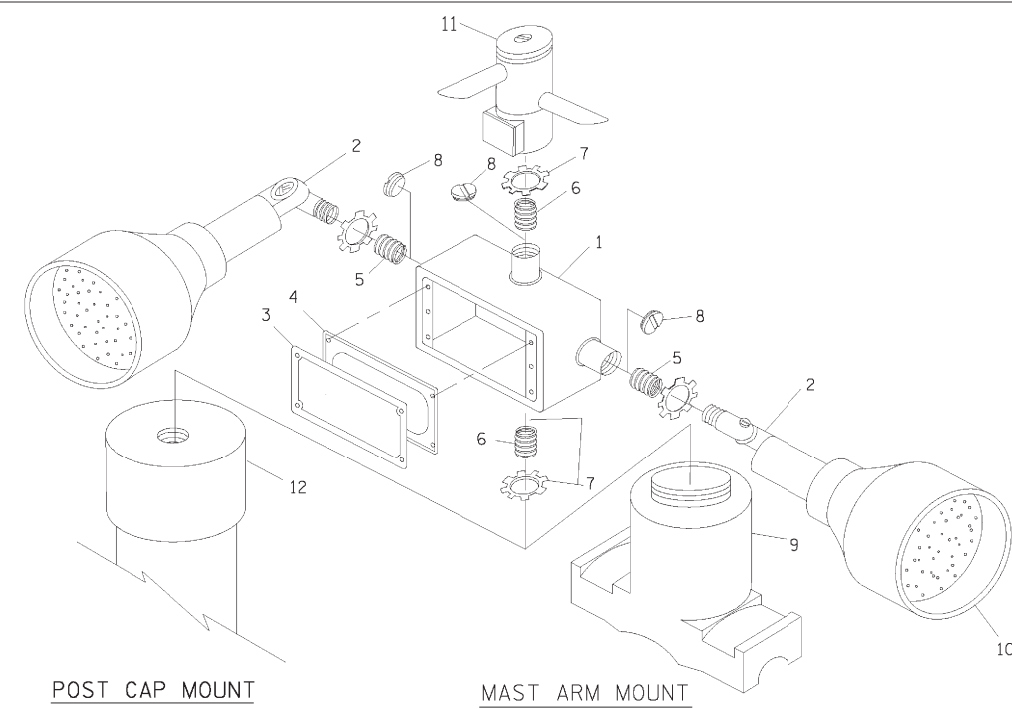
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



POST CAP MOUNT

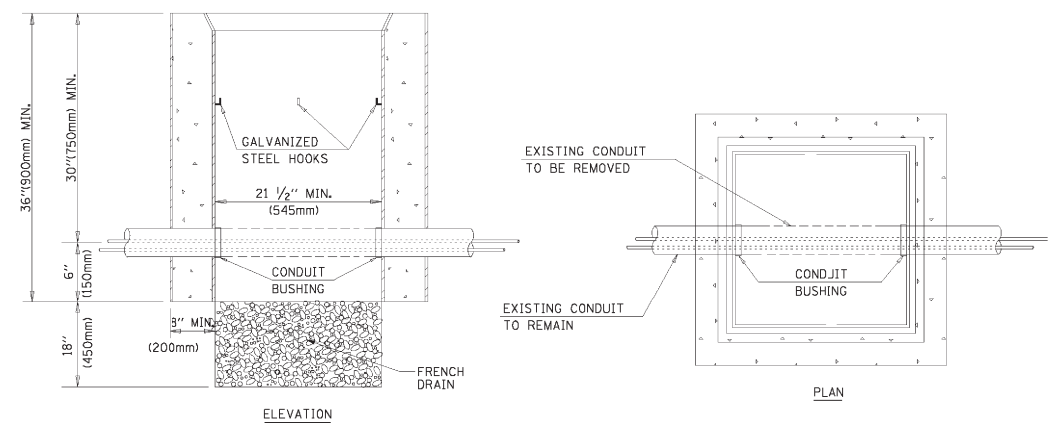
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"(19 mm) CLOSE NIPPLE
7	3/4\"(19 mm) LOCKNUT
8	3/4\"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

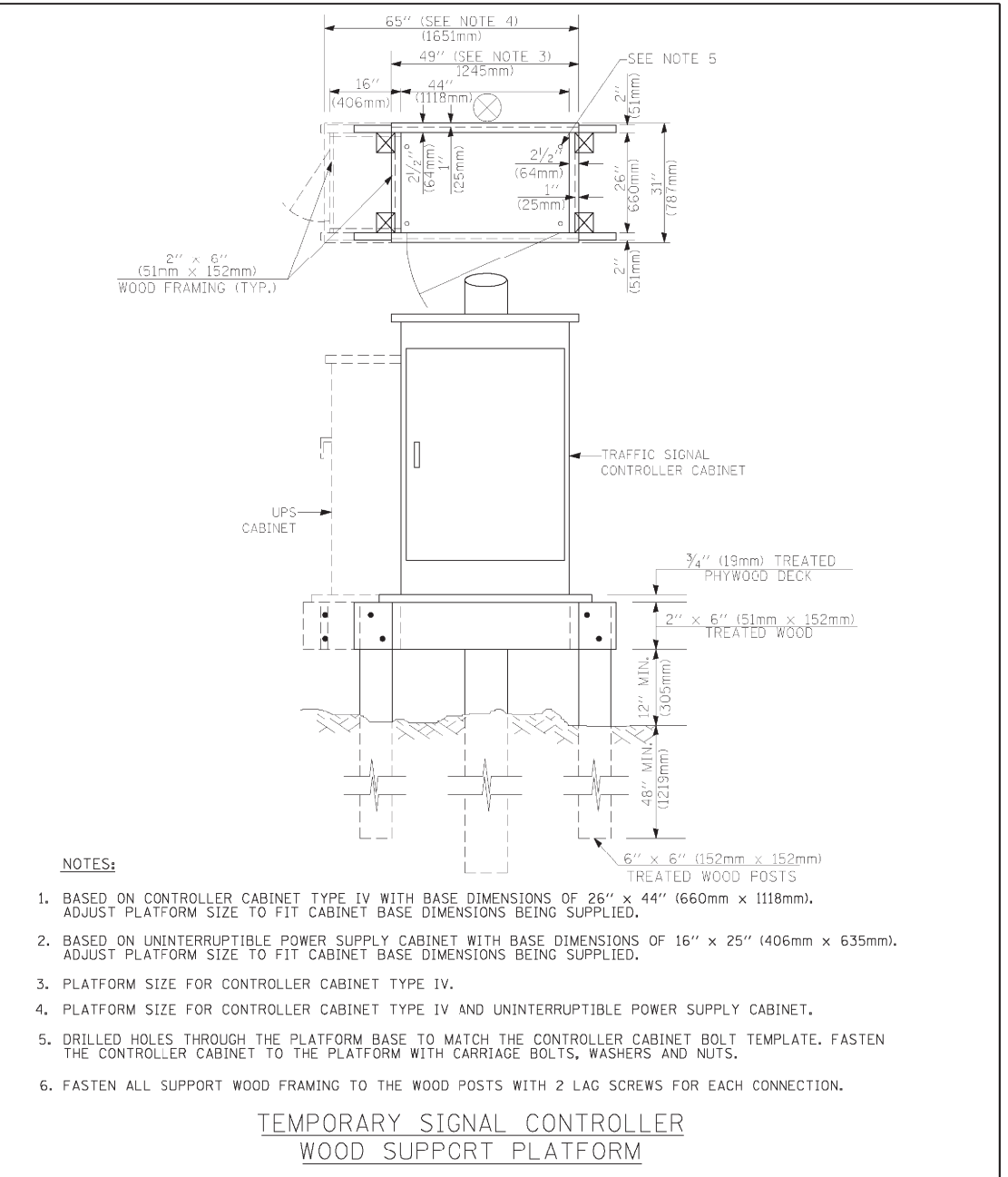
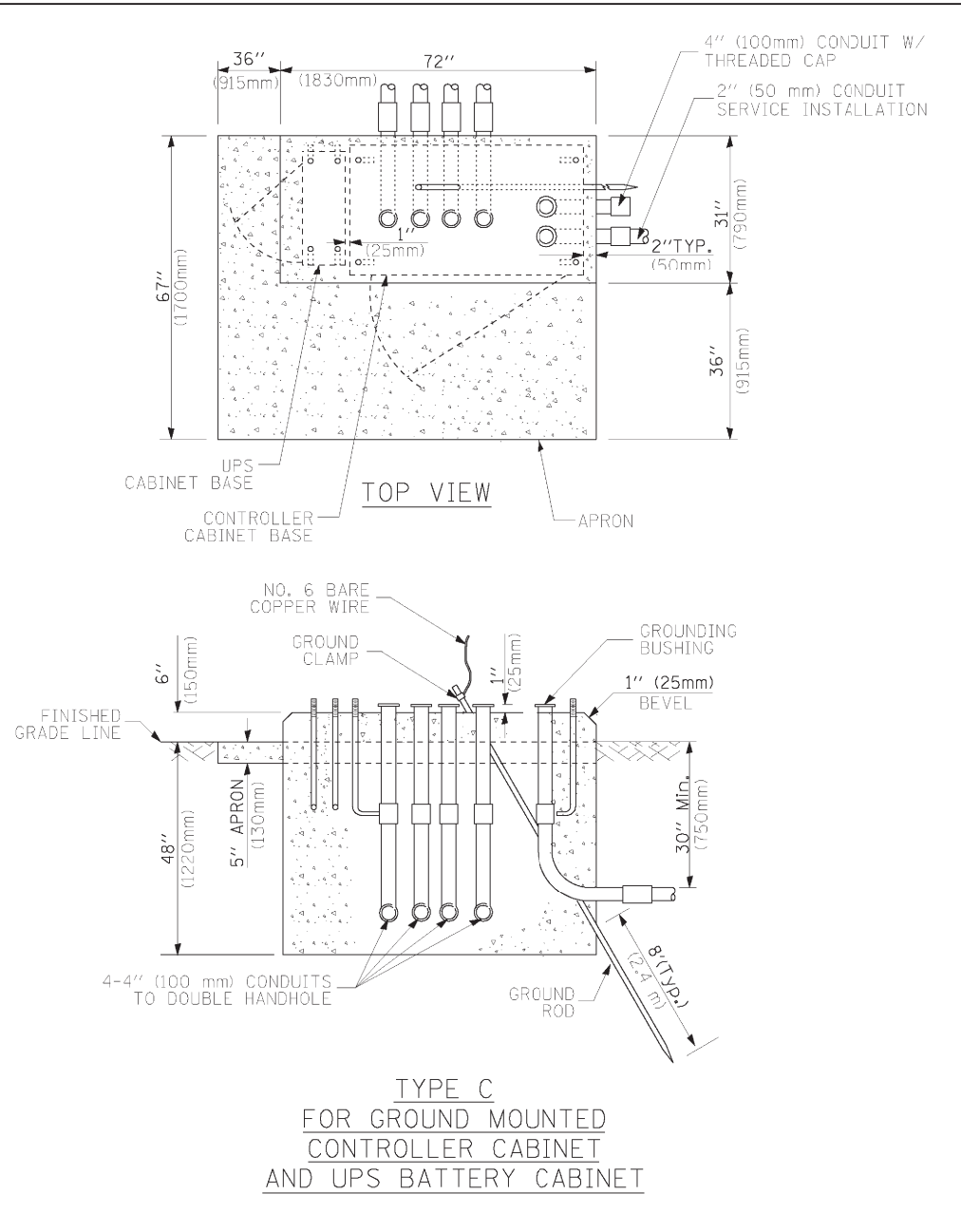
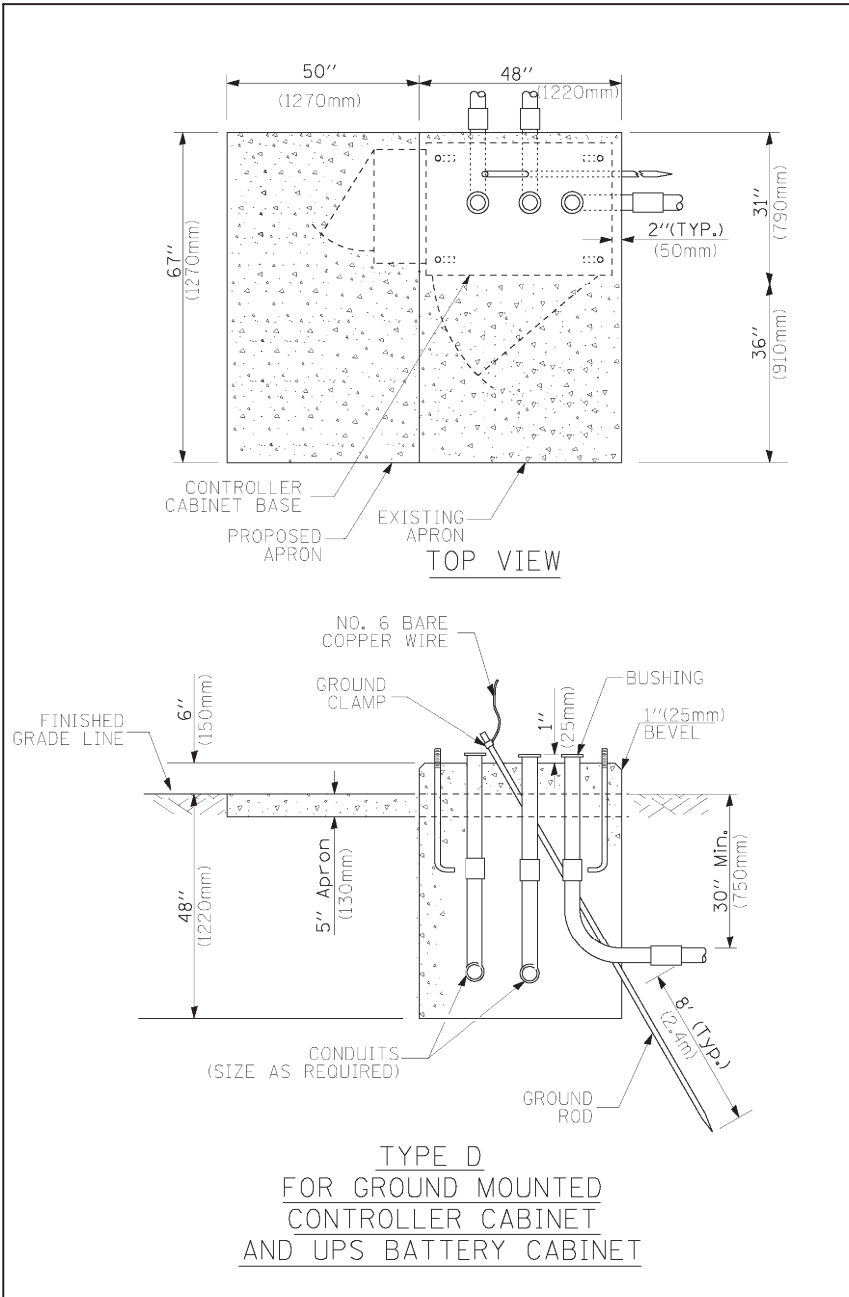
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-0-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



NOTES:

- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT



- NOTES:**
1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
 4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
 5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
 6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average unconfined compressive strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
 2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
 3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
 4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

TS-6



USER NAME = rmanucod	DESIGNED JA	REVISED -
PLOT SCALE = *SCALE*	DRAWN RM	REVISED -
PLOT DATE = 11/14/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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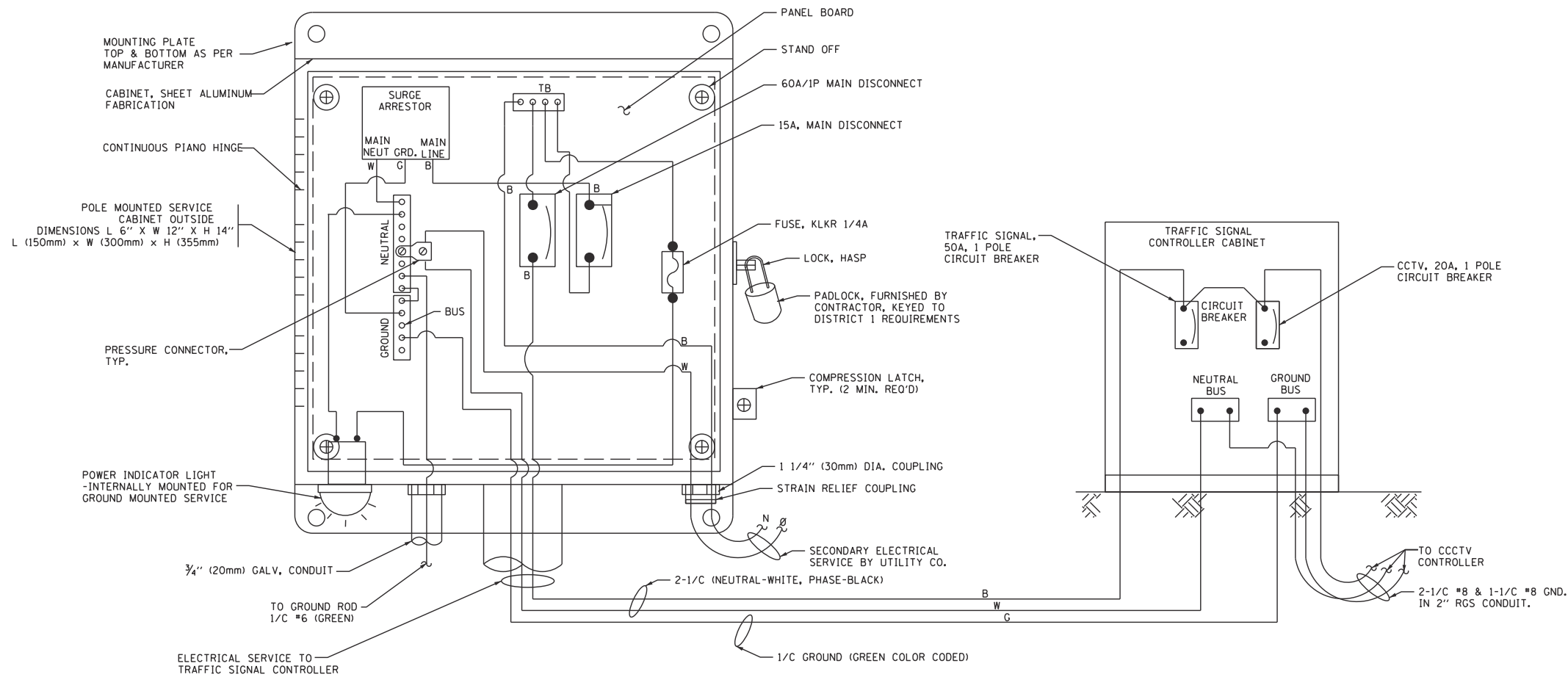
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330	0105-WRS	COOK	537	239
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

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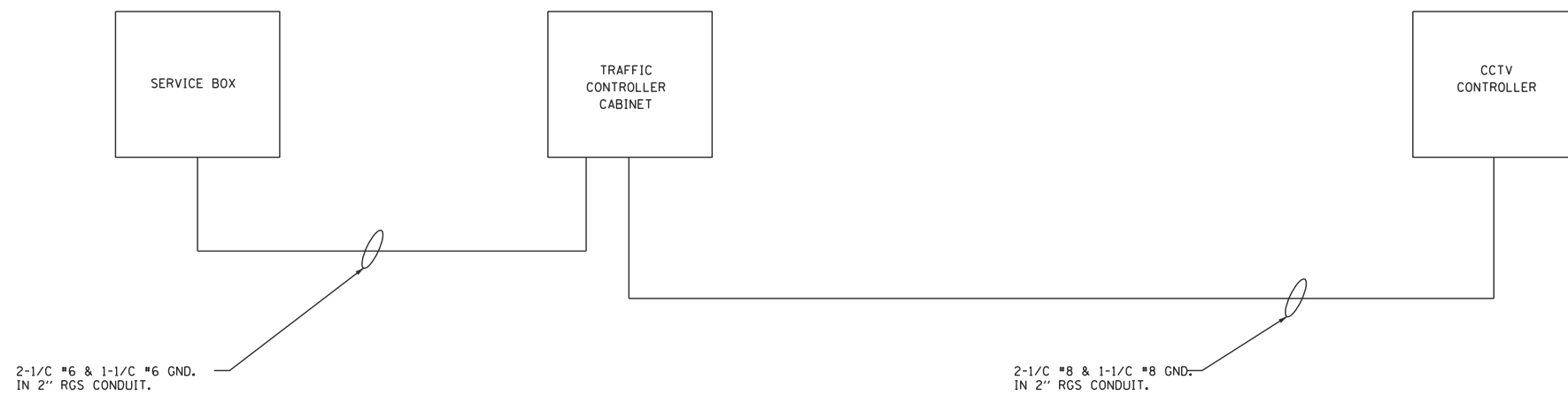
TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED																		
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE																					
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE																					
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA																					
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED																					
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																					
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																					
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)																					
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE																					
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED																					
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED																					
SIGNAL POST				REMOVE ITEM	R			SIGNAL POST AND FOUNDATION TO BE REMOVED																					
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			INTERSECTION & SAMPLING (SYSTEM) DETECTOR																					
GUY WIRE				ABANDON ITEM	A			SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PREFORMED SAMPLING (SYSTEM) DETECTOR																					
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				<h2 style="margin: 0;">RAILROAD SYMBOLS</h2> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%;">EXISTING</th> <th style="width: 25%;">PROPOSED</th> </tr> </thead> <tbody> <tr> <td>RAILROAD CONTROL CABINET</td> <td></td> <td></td> </tr> <tr> <td>RAILROAD CANTILEVER MAST ARM</td> <td></td> <td></td> </tr> <tr> <td>FLASHING SIGNAL</td> <td></td> <td></td> </tr> <tr> <td>CROSSING GATE</td> <td></td> <td></td> </tr> <tr> <td>CROSSBUCK</td> <td></td> <td></td> </tr> </tbody> </table>					EXISTING	PROPOSED	RAILROAD CONTROL CABINET			RAILROAD CANTILEVER MAST ARM			FLASHING SIGNAL			CROSSING GATE			CROSSBUCK		
	EXISTING	PROPOSED																											
RAILROAD CONTROL CABINET																													
RAILROAD CANTILEVER MAST ARM																													
FLASHING SIGNAL																													
CROSSING GATE																													
CROSSBUCK																													
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED																									
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID																									
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER																									
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT																									
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER																									
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																									
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																									
MICROWAVE VEHICLE SENSOR																													
VIDEO DETECTION CAMERA																													
VIDEO DETECTION ZONE																													
PAN, TILT, ZOOM CAMERA																													
WIRELESS DETECTOR SENSOR																													
WIRELESS ACCESS POINT																													

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**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(N.T.S.)**



**ELECTRICAL SERVICE – SERVICE DIAGRAM
(N.T.S.)**

- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

USER NAME = rmmucod	DESIGNED JA	REVISED -
	DRAWN RM	REVISED -
PLOT SCALE = *SCALE*	CHECKED HS	REVISED -
PLOT DATE = 11/14/2012	DATE 10/19/2012	REVISED -

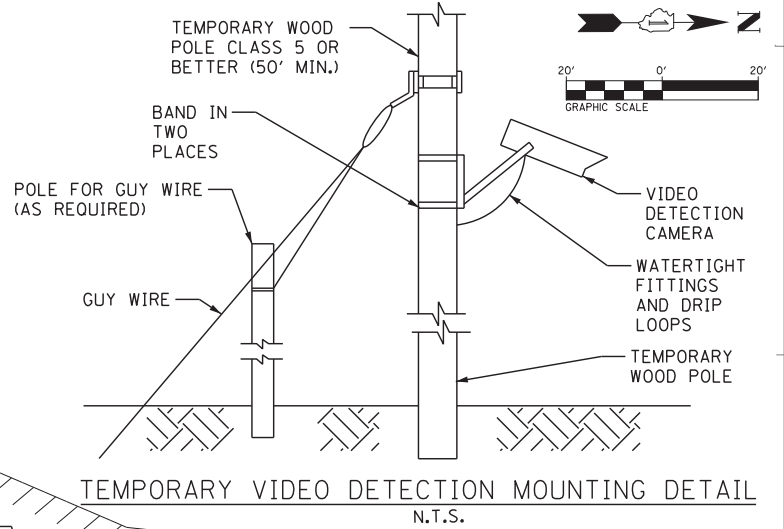
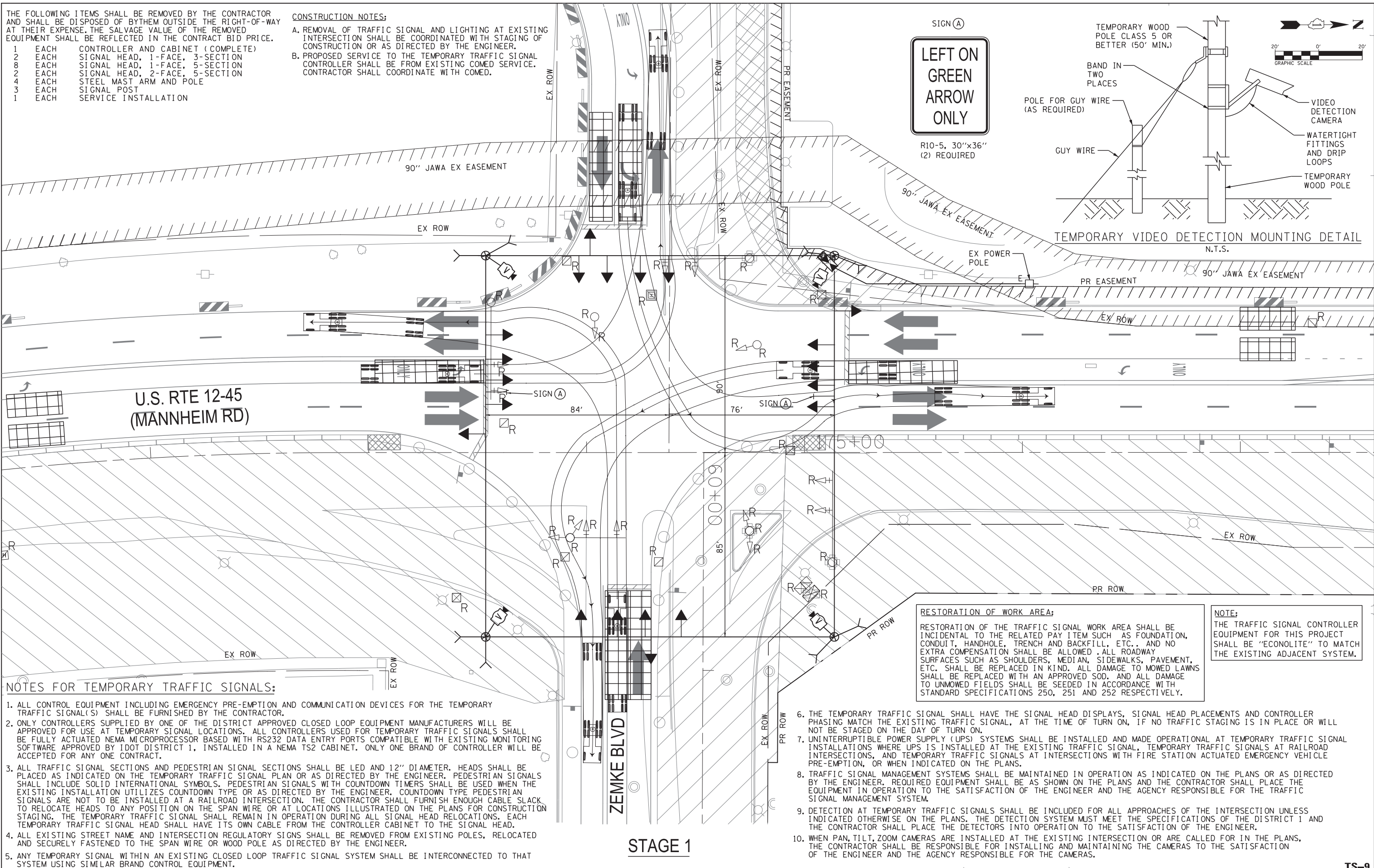
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	241
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- | | | |
|---|------|-----------------------------------|
| 1 | EACH | CONTROLLER AND CABINET (COMPLETE) |
| 2 | EACH | SIGNAL HEAD, 1-FACE, 3-SECTION |
| 8 | EACH | SIGNAL HEAD, 1-FACE, 5-SECTION |
| 2 | EACH | SIGNAL HEAD, 2-FACE, 5-SECTION |
| 4 | EACH | STEEL MAST ARM AND POLE |
| 3 | EACH | SIGNAL POST |
| 1 | EACH | SERVICE INSTALLATION |

CONSTRUCTION NOTES:

- A. REMOVAL OF TRAFFIC SIGNAL AND LIGHTING AT EXISTING INTERSECTION SHALL BE COORDINATED WITH STAGING OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
- B. PROPOSED SERVICE TO THE TEMPORARY TRAFFIC SIGNAL CONTROLLER SHALL BE FROM EXISTING COMED SERVICE. CONTRACTOR SHALL COORDINATE WITH COMED.



RESTORATION OF WORK AREA:

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 250, 251 AND 252 RESPECTIVELY.

NOTE:

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF TURN ON.
- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

STAGE 1



USER NAME = rmanucod	DESIGNED JA	REVISED -
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PLOT DATE = 11/29/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

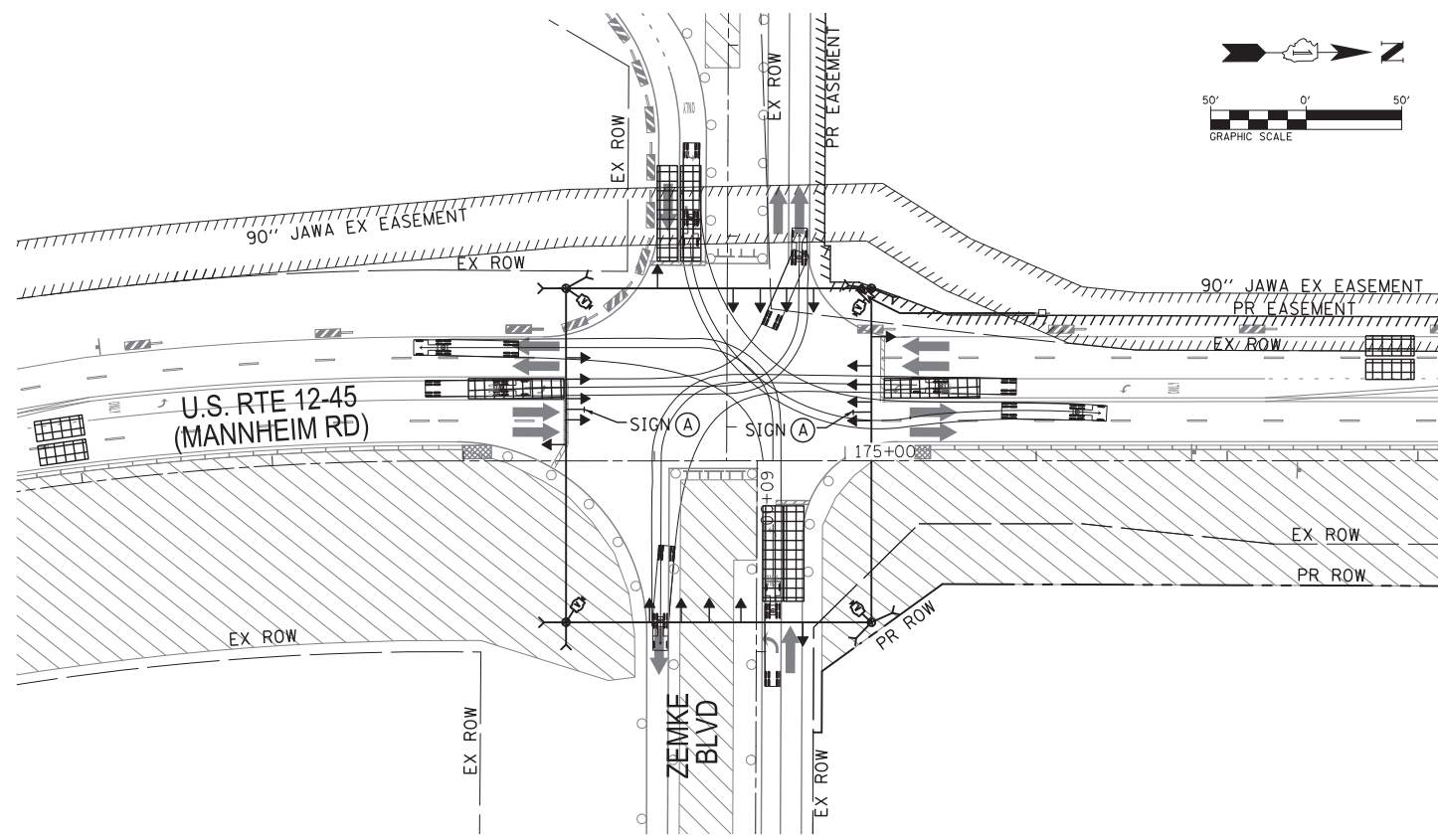
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN US RTE 12-45 (MANNHEIM RD) AND ZEMKE BLVD. (STAGE 1)

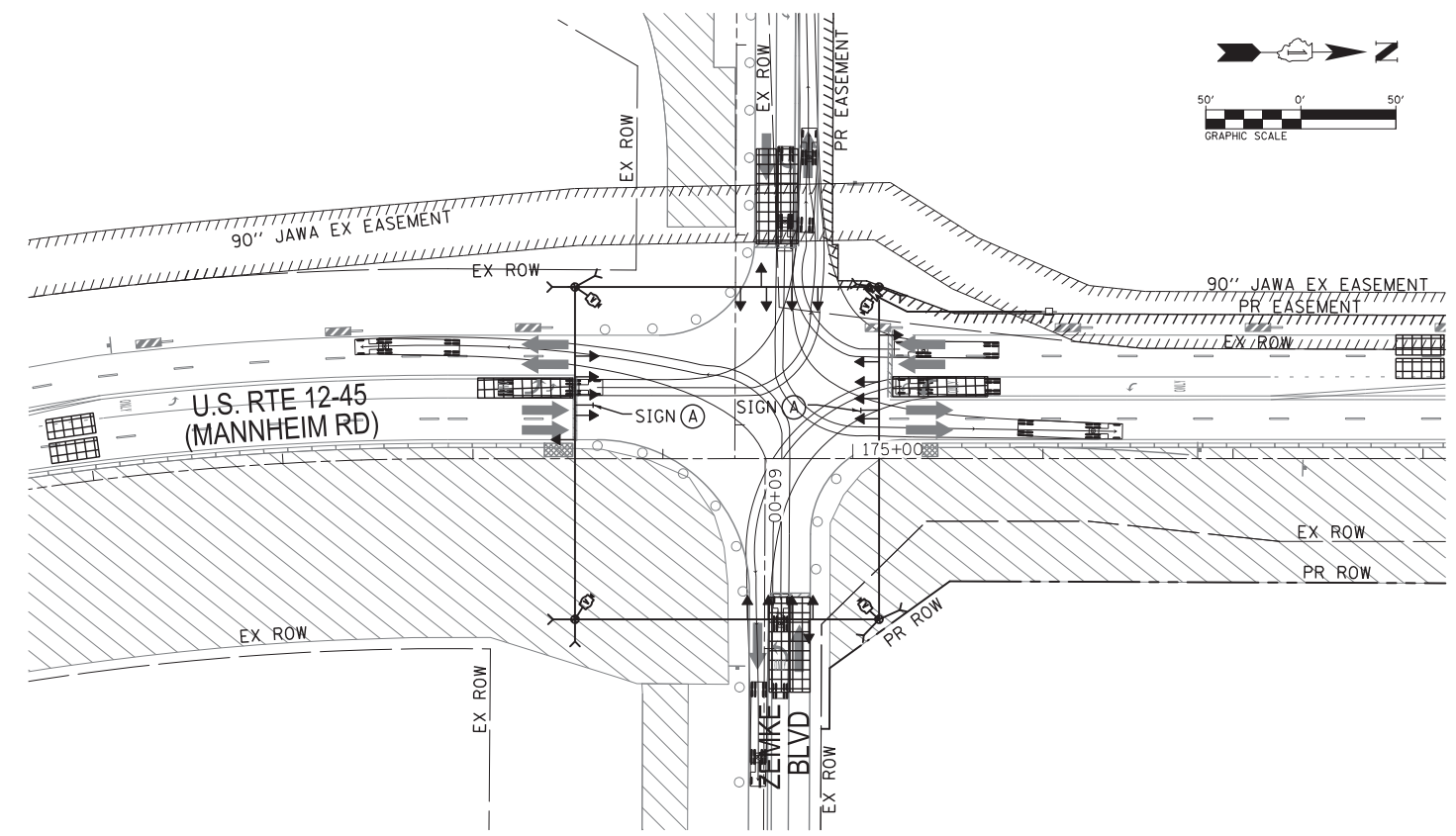
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				CONTRACT NO. 60P35
ILLINOIS FED. AID PROJECT				

TS-9

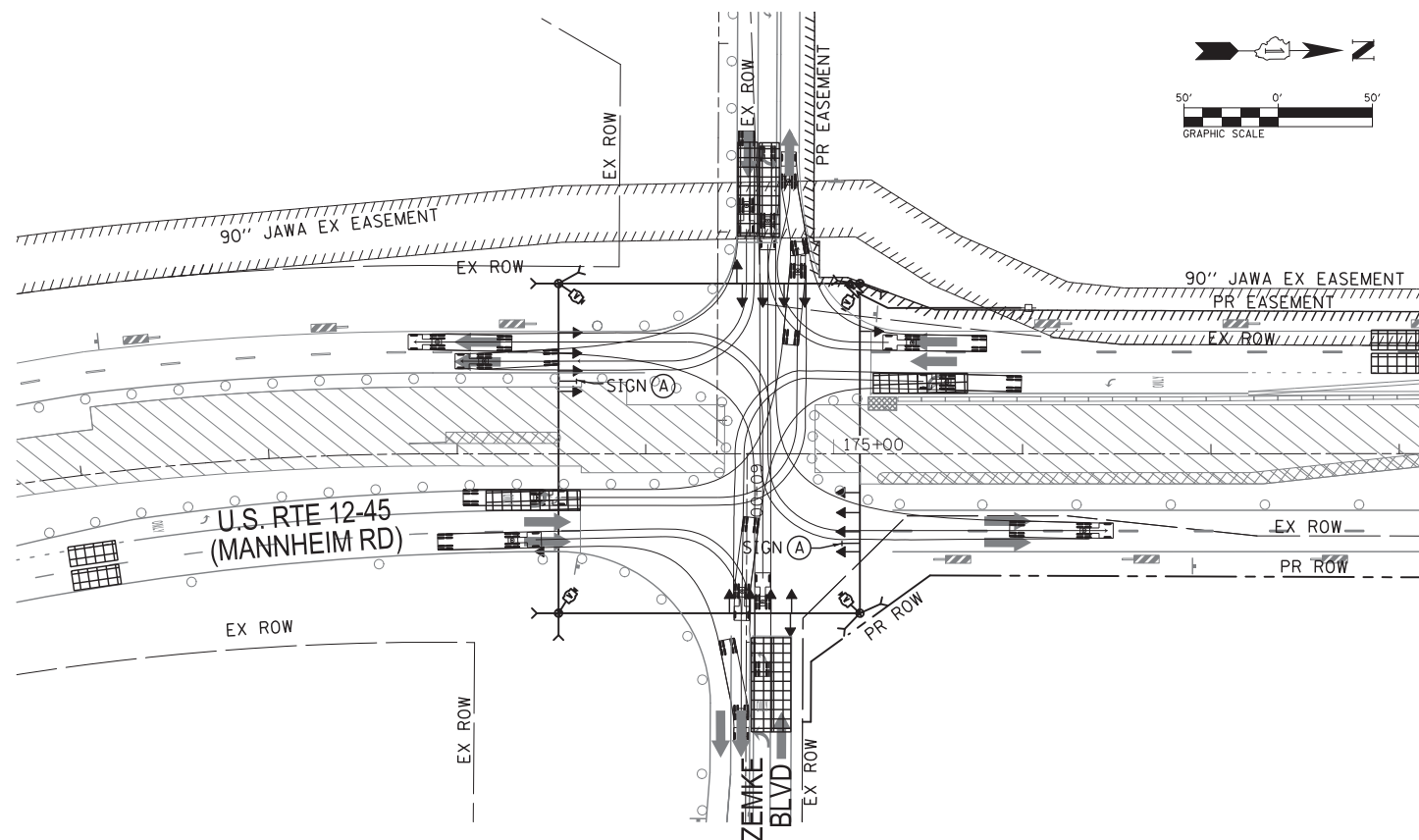
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STAGE 1A



STAGE 1B



STAGE 1C



USER NAME = rmmucod	DESIGNED JA	REVISED -
PLOT SCALE = *SCALE*	DRAWN RM	REVISED -
PLOT DATE = 11/29/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

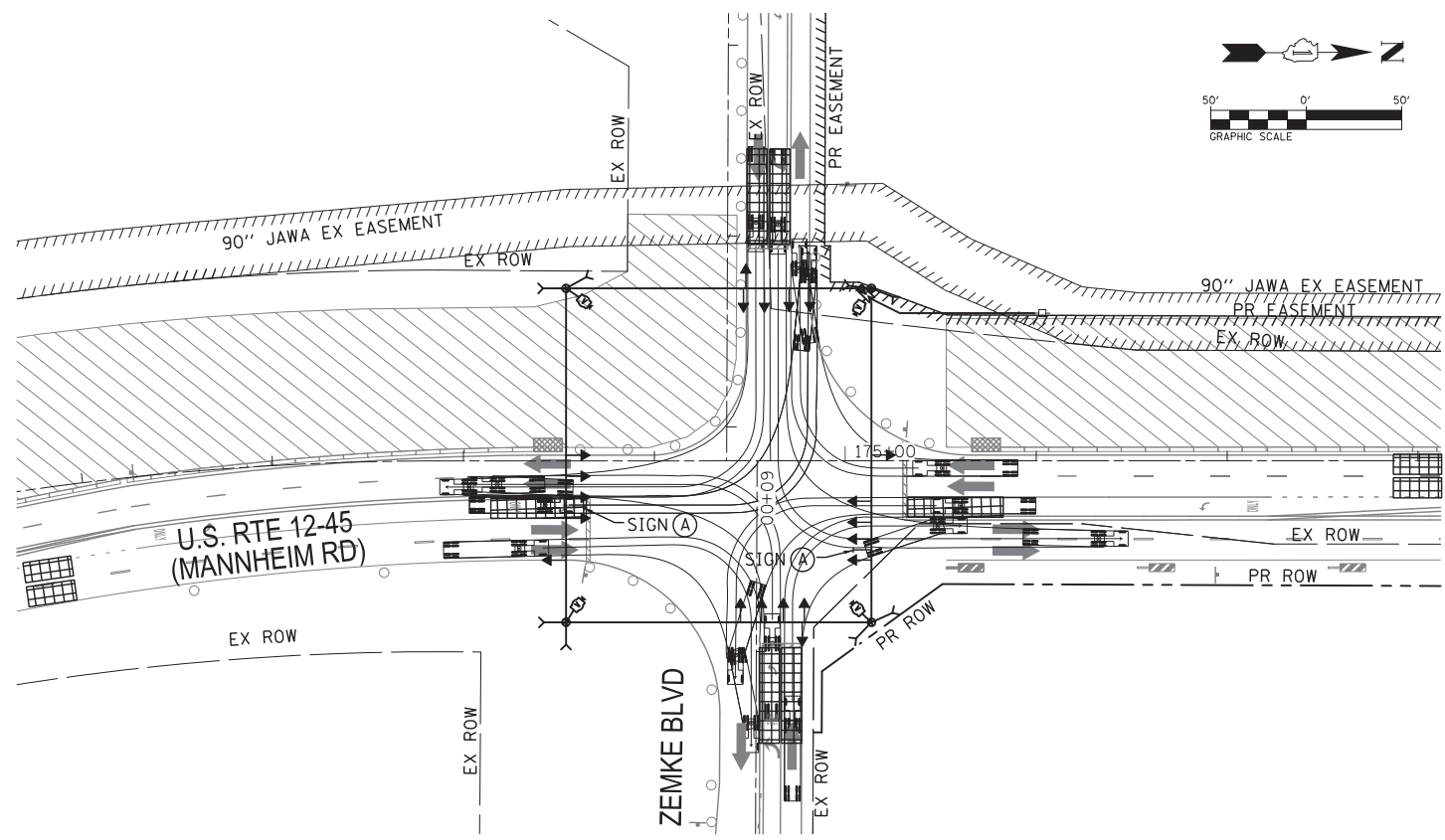
TEMPORARY TRAFFIC SIGNAL INSTALLATION
US RTE 12-45 (MANNHEIM RD) AND ZEMKE BLVD
(SUB-STAGES 1A THRU STAGE 1C)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

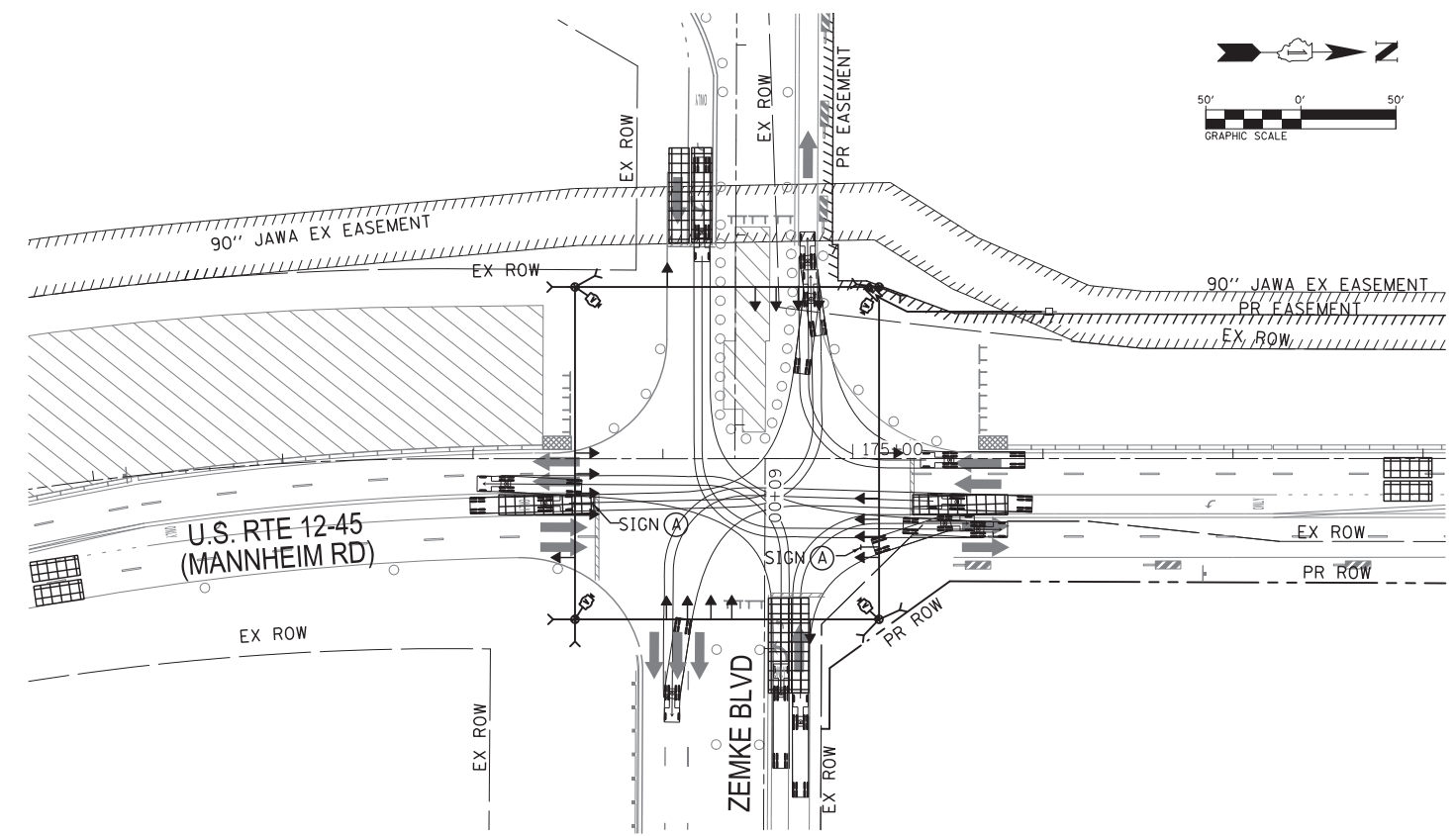
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330	0105-WRS	COOK	537	243
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

TS-10

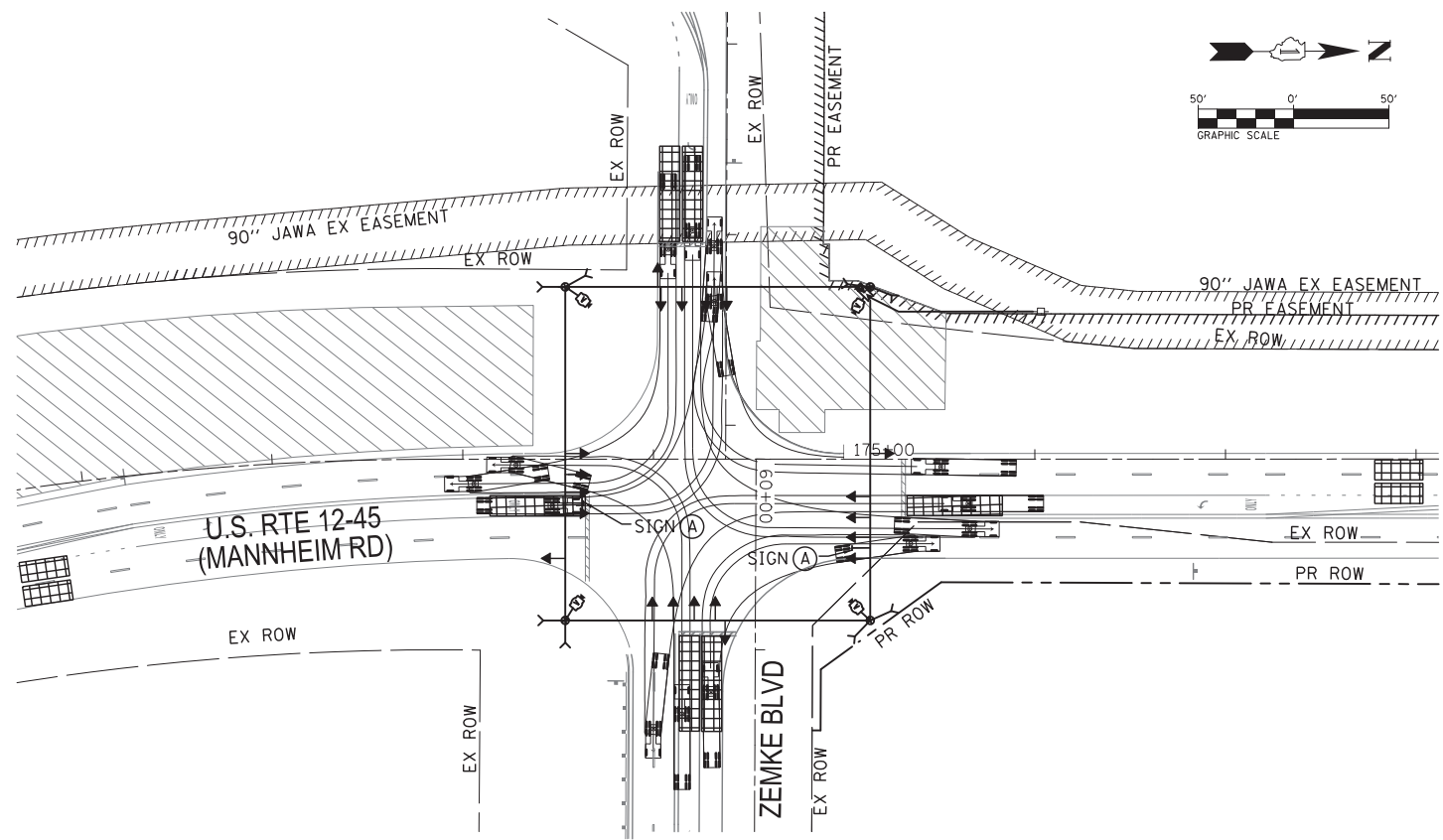
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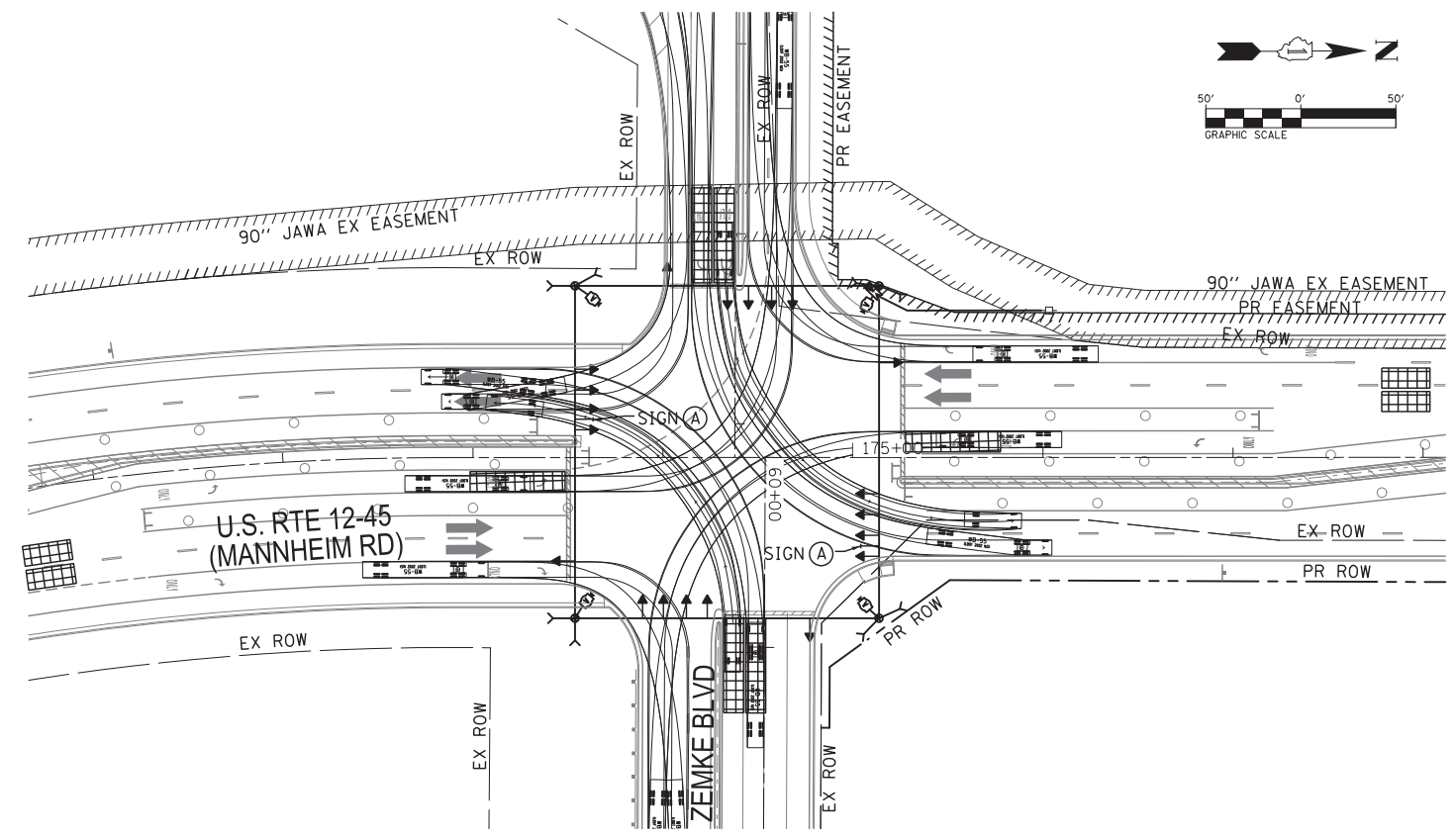
STAGE 2



STAGE 2A



STAGE 2B



STAGE 3



USER NAME = rmemucod	DESIGNED JA	REVISED -
PLOT SCALE = *SCALE*	DRAWN RM	REVISED -
PLOT DATE = 11/29/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
US RTE 12-45 (MANNHEIM RD) AND ZEMKE BLVD.
(STAGE 2 THRU SUB-STAGE 3)

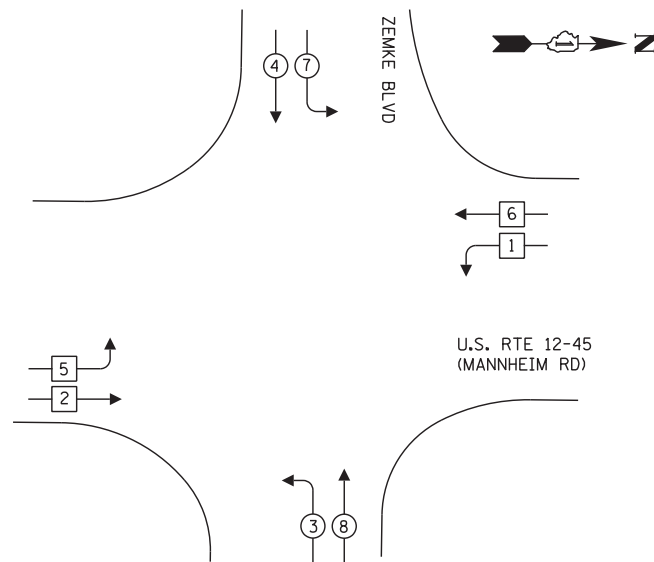
SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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330	0105-WRS	COOK	537	244
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60P35	

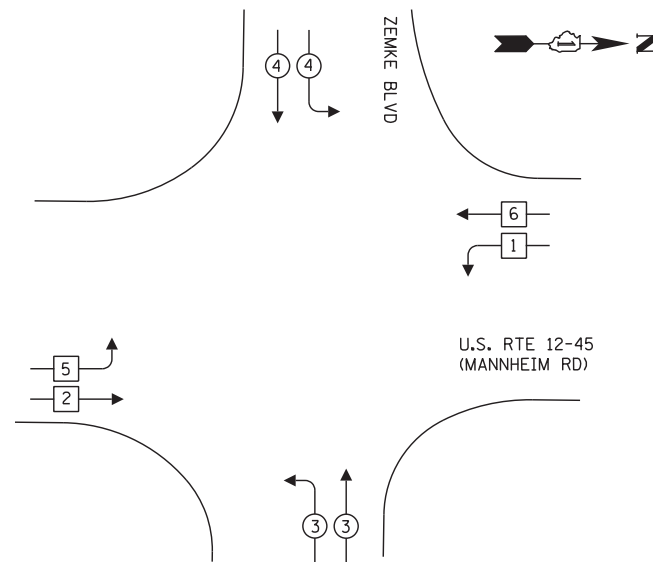
TS-11

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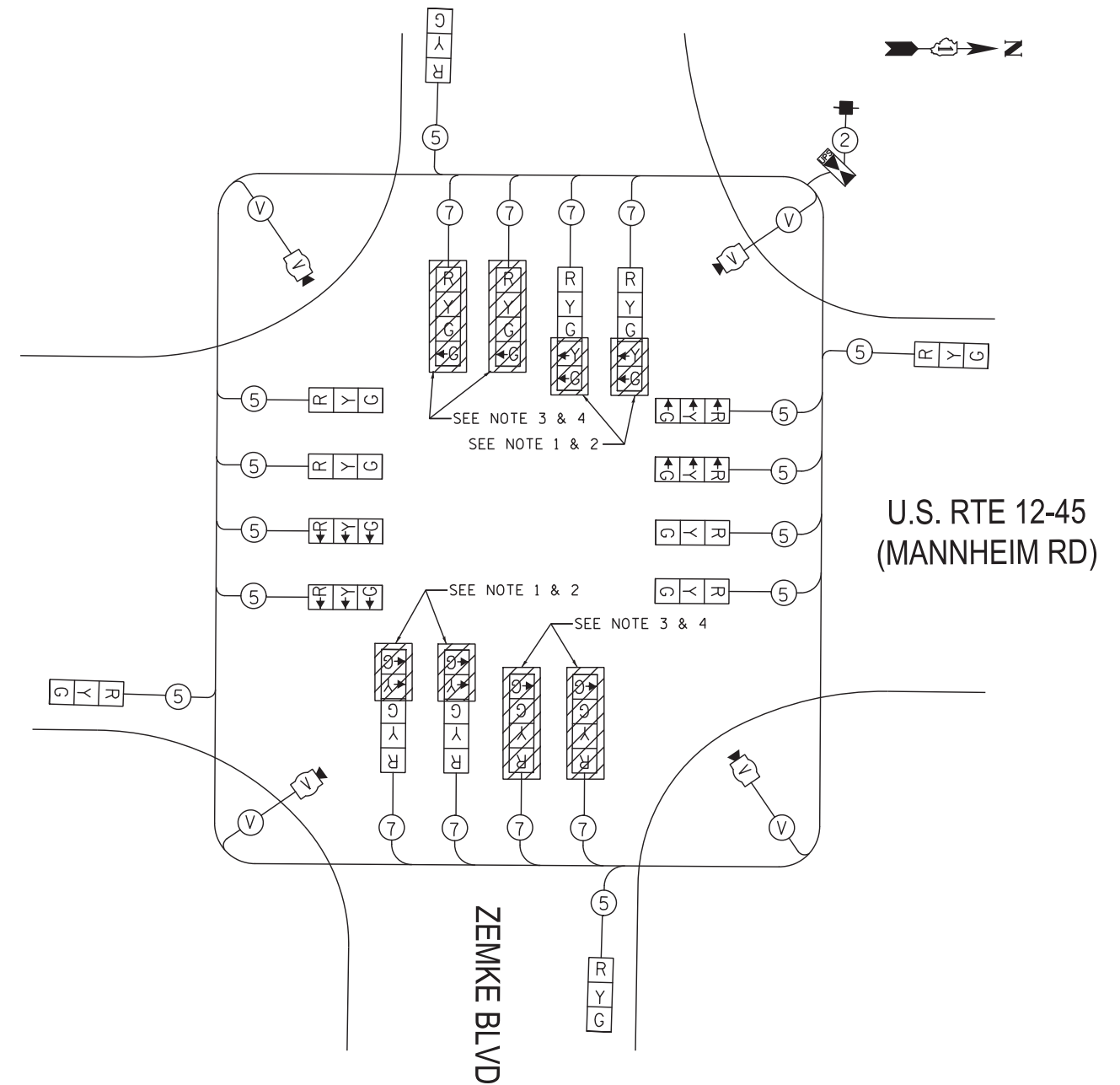
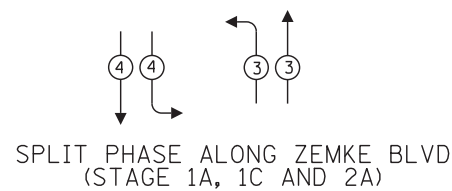
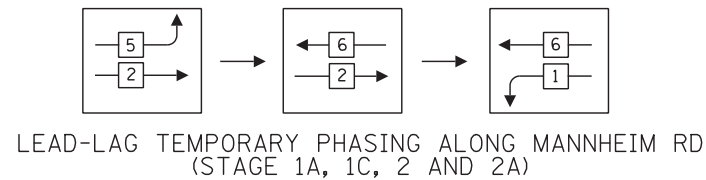
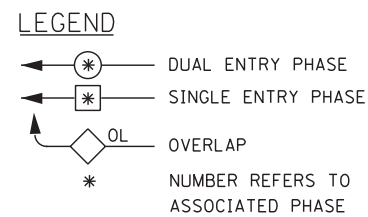
CONTROLLER SEQUENCE
(STAGE 1, 1B, 2B AND 3)



CONTROLLER SEQUENCE
(STAGE 1A, 1C, 2 AND 2A)



PHASE DESIGNATION DIAGRAM



TEMPORARY CABLE PLAN

STAGE 1A THRU 1C
STAGE 2A THRU 2B
STAGE 3

NOTE:

1. BAGGED AND DISCONNECT THE LEFT TURN SIGNALS DURING STAGES 1A, 1C, 2 AND 2A.
2. UNBAG AND CONNECT LEFT TURN SIGNALS FOR STAGES 1, 1B, 2B AND 3.
3. BAGGED AND DISCONNECT THE COMPLETE SIGNAL HEADS DURING STAGES 1, 1B, 2B AND 3.
4. UNBAG AND CONNECT THE COMPLETE SIGNAL HEADS DURING STAGES 1A, 1C, 2 AND 2A.

NOTE:

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS*	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	20		17	0.50	170.00
(YELLOW)	20		25	0.25	125.00
(GREEN)	20		15	0.25	75.00
ARROW	12		12	0.10	14.40
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	1	150	-	1.00	150.00
FLASHER					
ENERGY COSTS TO: TOTAL =					634.40
ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY/DISTRICT 1 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: STEVE FITZGERALD					
PHONE: (708) 235-2327					
COMPANY: ComEd					



USER NAME = kkhon
DESIGNED JA
DRAWN RM
PLOT SCALE = *SCALE*
CHECKED HS
PLOT DATE = 11/29/2012
DATE 10/19/2012

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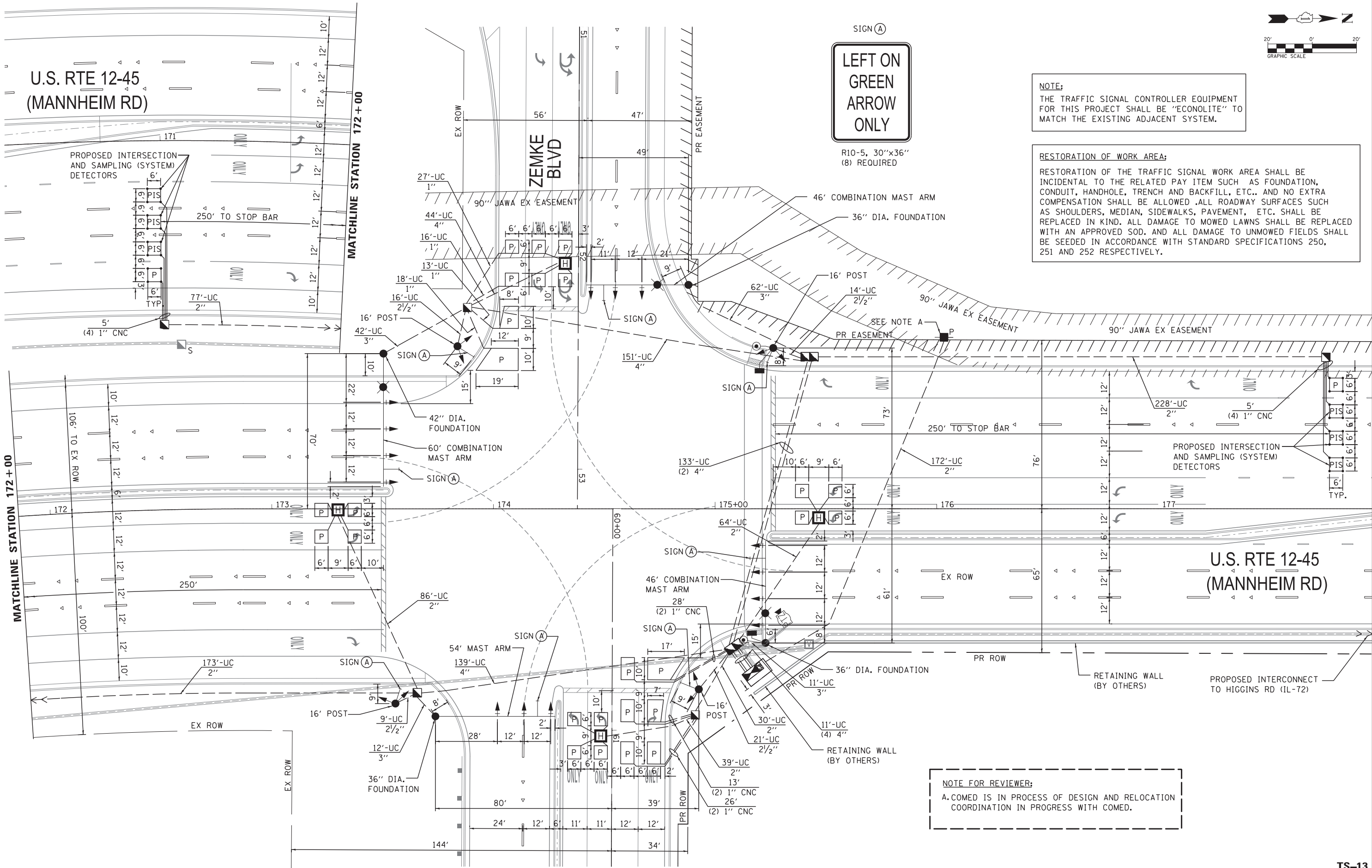
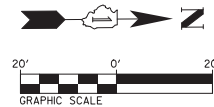
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN AND
TEMPORARY PHASE DESIGNATION DIAGRAM
US RTE 12-45 (MANNHEIM RD) AND ZEMKE BLVD**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	245
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

TS-12



SIGN (A)
**LEFT ON GREEN
 ARROW
 ONLY**

R10-5, 30"x36"
 (8) REQUIRED

NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 250, 251 AND 252 RESPECTIVELY.

NOTE FOR REVIEWER:
 A. COMED IS IN PROCESS OF DESIGN AND RELOCATION COORDINATION IN PROGRESS WITH COMED.



USER NAME = rmmucod	DESIGNED JA	REVISED -
PLOT SCALE = *SCALE*	DRAWN RM	REVISED -
PLOT DATE = 11/29/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
 US RTE 12-45 (MANNHEIM RD) AND ZEMKE BLVD**

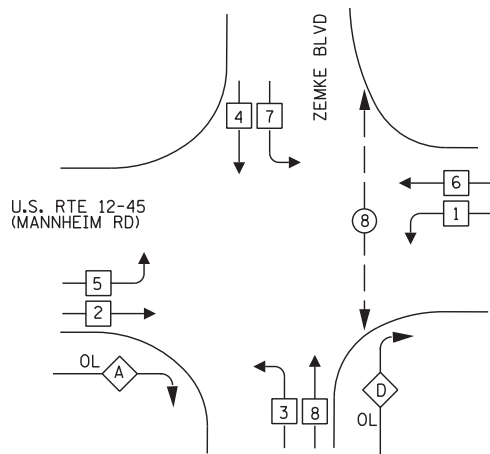
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 246
				CONTRACT NO. 60P35
ILLINOIS FED. AID PROJECT				

TS-13

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CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

LEGEND

- ⊛ DUAL ENTRY PHASE
- ⊙ SINGLE ENTRY PHASE
- ◊ OL OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

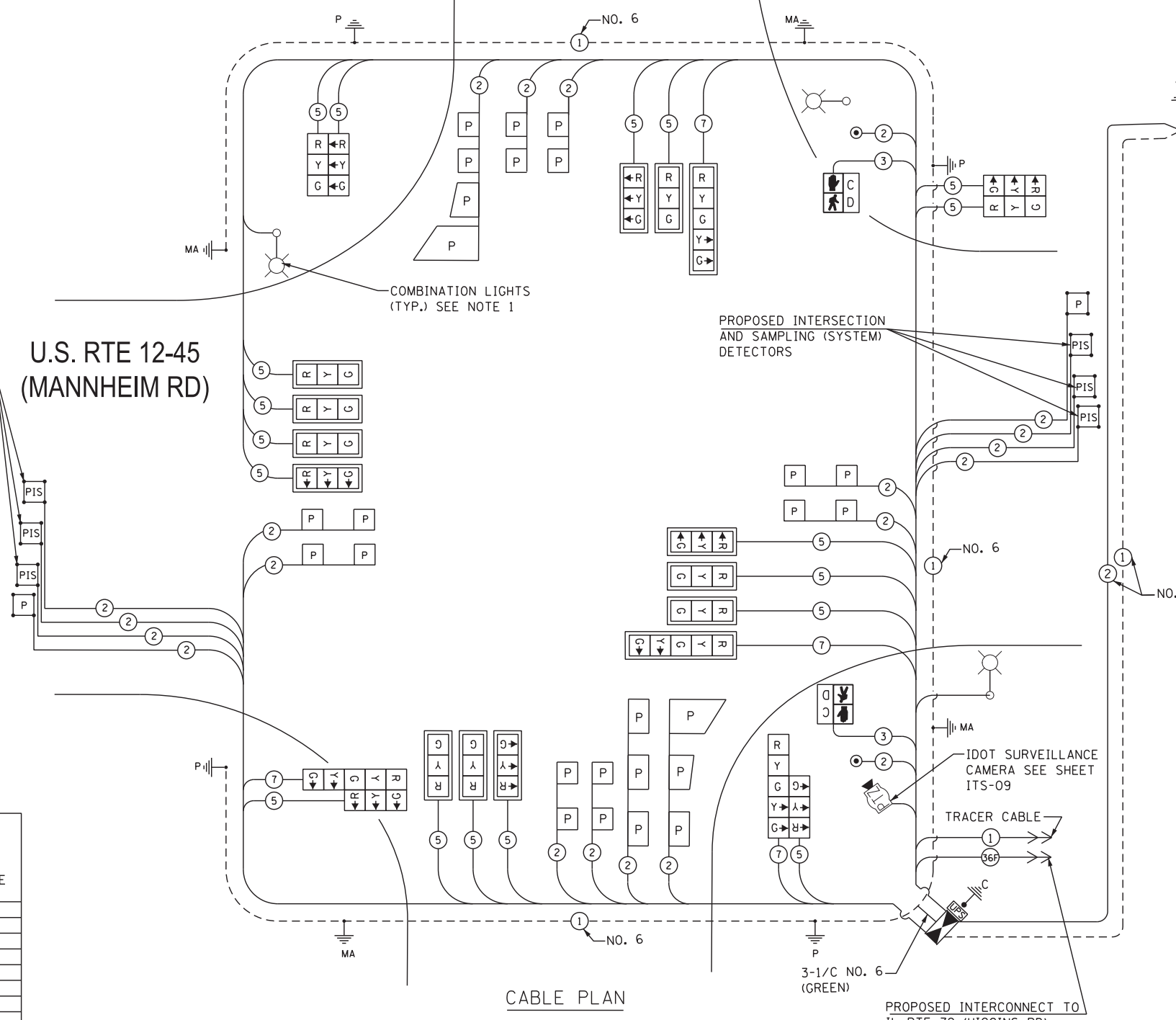
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2 +	3
D	= 8 +	1

PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

U.S. RTE 12-45 (MANNHEIM RD)

ZEMKE BLVD

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.



CABLE PLAN

PROPOSED INTERCONNECT TO IL RTE 72 (HIGGINS RD)

SCHEDULE OF QUANTITIES

NO.	PAY ITEM DESCRIPTION	UNT	MANHEIM RD / ZEMKE BLVD
1	SIGN PANEL - TYPE 1	SQ FT	76.50
2	SIGN PANEL - TYPE 2	SQ FT	33.00
3	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	882
4	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	61
5	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	127
6	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	619
7	HANDHOLE	EACH	5
8	HEAVY-DUTY HANDHOLE	EACH	4
9	DOUBLE HANDHOLE	EACH	2
10	TRANSCEIVER - FIBER OPTIC	EACH	1
11	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	234
12	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	248
13	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	4095
14	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,201
15	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	5,319
16	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	190
17	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,562
18	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
19	STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
20	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	2
21	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 60 FT.	EACH	1
22	CONCRETE FOUNDATION, TYPE A	FOOT	20
23	CONCRETE FOUNDATION, TYPE C	FOOT	4
24	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	41
25	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
26	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	12
27	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
28	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
29	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
30	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
31	TRAFFIC SIGNAL BACKPLATE LOUVERED, ALUMINUM	EACH	14
32	INDUCTIVE LOOP DETECTOR	EACH	19
33	PREFORMED DETECTOR LOOP	FOOT	1,443
34	PEDESTRIAN PUSH-BUTTON	EACH	2
35	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
36	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
37	REMOVE EXISTING HANDHOLE	EACH	12
38	REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
39	SERVICE INSTALLATION (SPECIAL)	EACH	1
40	FULL-ACTUATED CONTROLLER AND TYPE 'N' CABINET, SPECIAL	EACH	1
41	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
42	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	22	17	0.50	187.00	
(YELLOW)	22	25	0.25	137.50	
(GREEN)	22	15	0.25	82.50	
ARROW	8	12	0.10	9.60	
PED. SIGNAL	2	25	1.00	50.00	
CONTROLLER	1	100	1.00	100	
ILLUM. SIGN	-	25	0.50	-	
VIDEO SYSTEM	-	-	1.00	-	
FLASHER					
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY/DISTRICT 1 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096					TOTAL = 566.60
ENERGY SUPPLY CONTACT: STEVE FITZGERALD PHONE: (708) 235-2327 COMPANY: ComEd					

TRAFFIC SIGNAL CONTROLLER LOAD			
LOCATION	TRAFFIC SIGNAL LOAD	CCTV CONTROLLER	TOTAL
MANHEIM RD / ZEMKE BLVD	0.56KW	0.5KW	1.06KW

NOTE:
1. INTERSECTION COMBINATION LIGHTS MAINTAINED BY IDOT. SEE LIGHTING PLANS FOR DETAILS.

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

DELTA ENGINEERING GROUP, LLC
 USER NAME = rmanucod
 DESIGNED JA
 DRAWN RM
 CHECKED HS
 DATE 10/19/2012
 PLOT SCALE = *SCALE*
 PLOT DATE = 11/29/2012

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
 US RTE 12-45 (MANNHEIM RD) AND ZEMKE BLVD
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

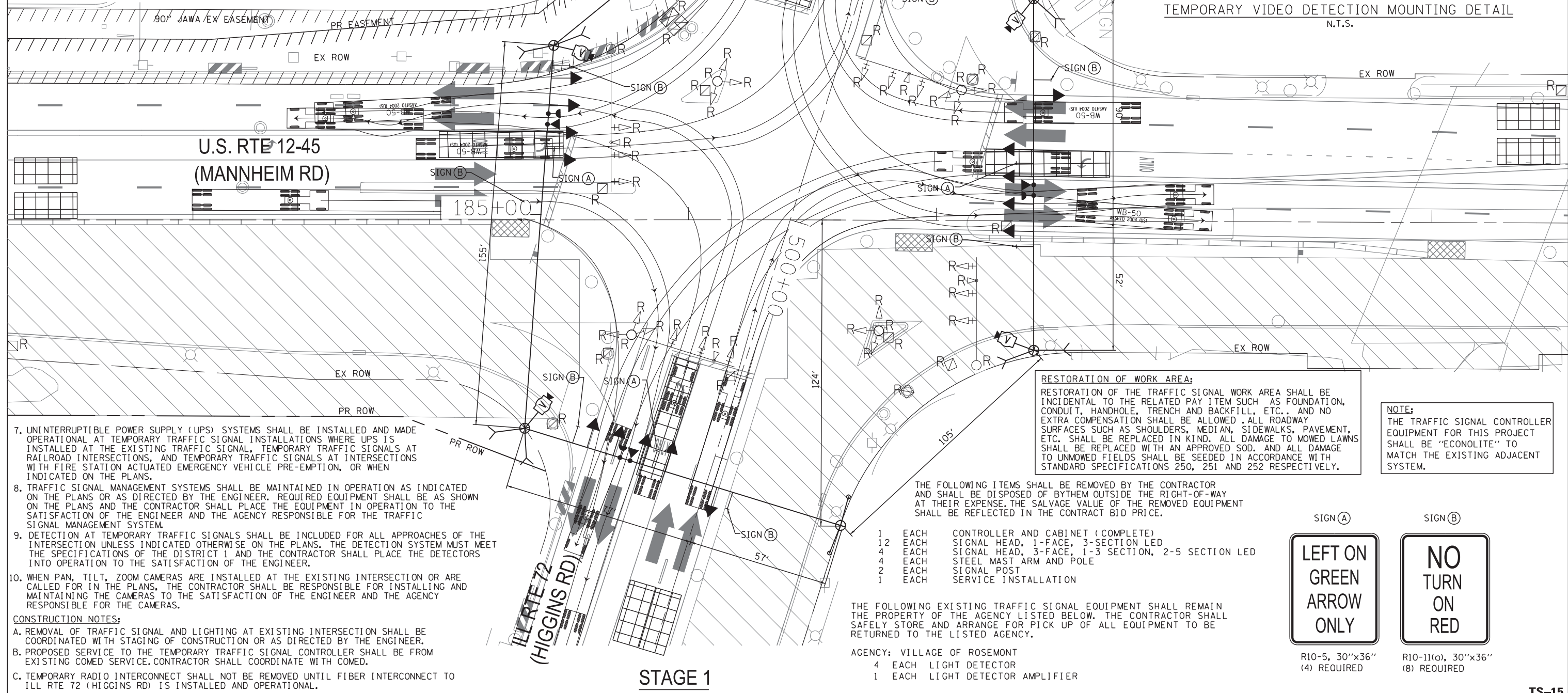
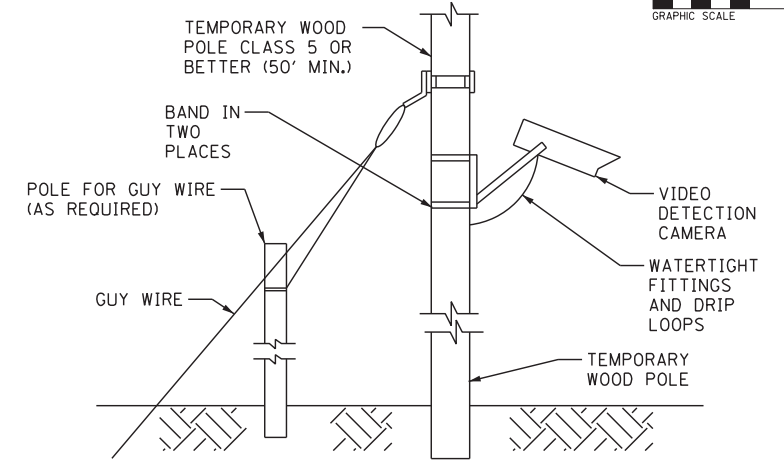
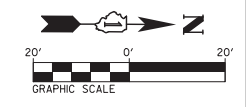
F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
 330 0105-WRS COOK 537 247
 CONTRACT NO. 60P35
 ILLINOIS FED. AID PROJECT

TS-14

FILE NAME = c:\cadd\lib\pwr\manucod2\pwr\great.lakes\dms47849\0160P35-sht.tsl4.dgn

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF TURN ON.



RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 250, 251 AND 252 RESPECTIVELY.

NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

CONSTRUCTION NOTES:

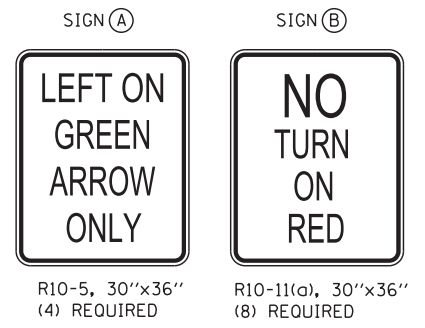
- A. REMOVAL OF TRAFFIC SIGNAL AND LIGHTING AT EXISTING INTERSECTION SHALL BE COORDINATED WITH STAGING OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
- B. PROPOSED SERVICE TO THE TEMPORARY TRAFFIC SIGNAL CONTROLLER SHALL BE FROM EXISTING COMED SERVICE. CONTRACTOR SHALL COORDINATE WITH COMED.
- C. TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO ILL RTE 72 (HIGGINS RD) IS INSTALLED AND OPERATIONAL.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 12 EACH SIGNAL HEAD, 1-FACE, 3-SECTION LED
- 4 EACH SIGNAL HEAD, 3-FACE, 1-3 SECTION, 2-5 SECTION LED
- 4 EACH STEEL MAST ARM AND POLE
- 2 EACH SIGNAL POST
- 1 EACH SERVICE INSTALLATION

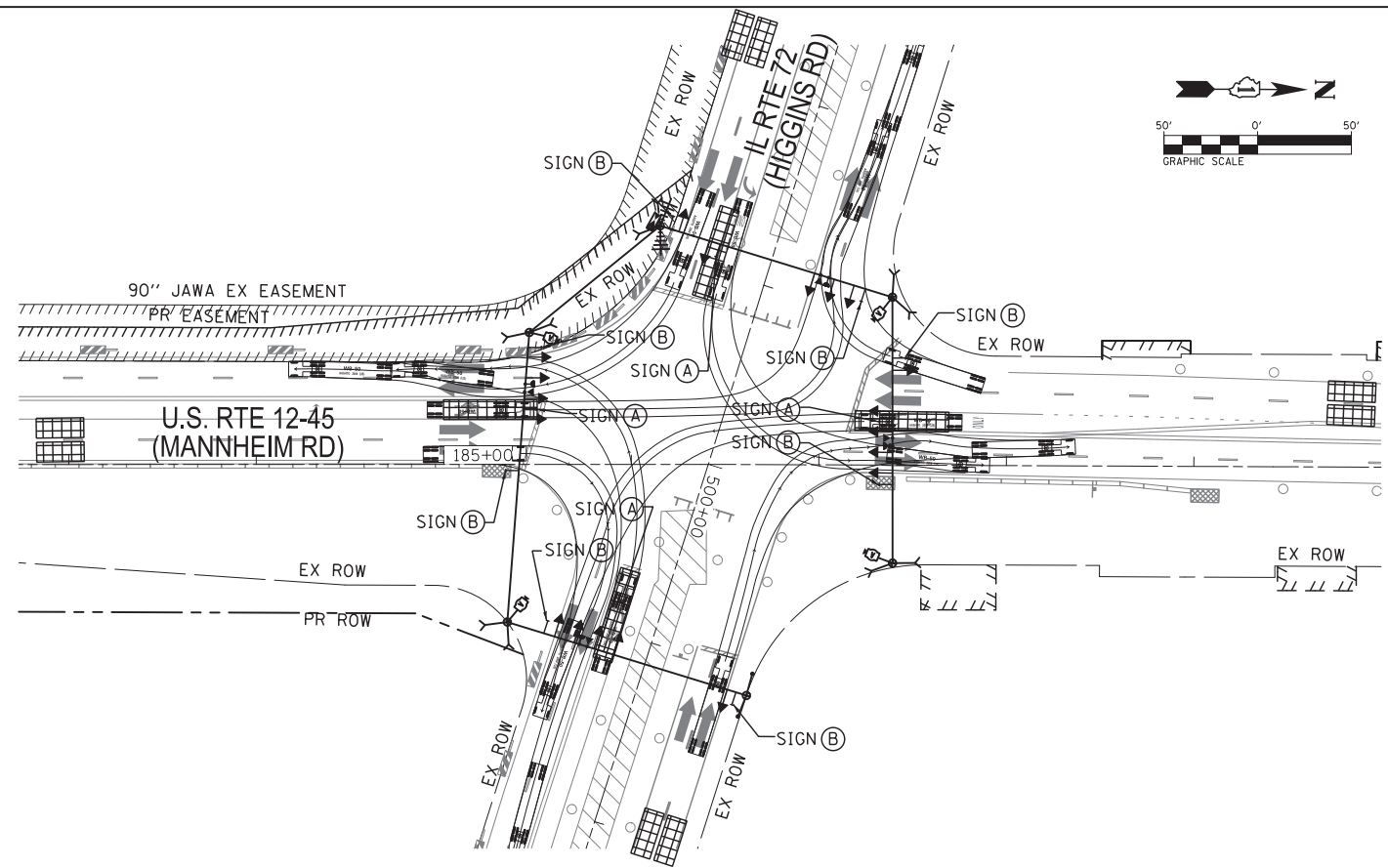
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY.

- AGENCY: VILLAGE OF ROSEMONT
- 4 EACH LIGHT DETECTOR
 - 1 EACH LIGHT DETECTOR AMPLIFIER

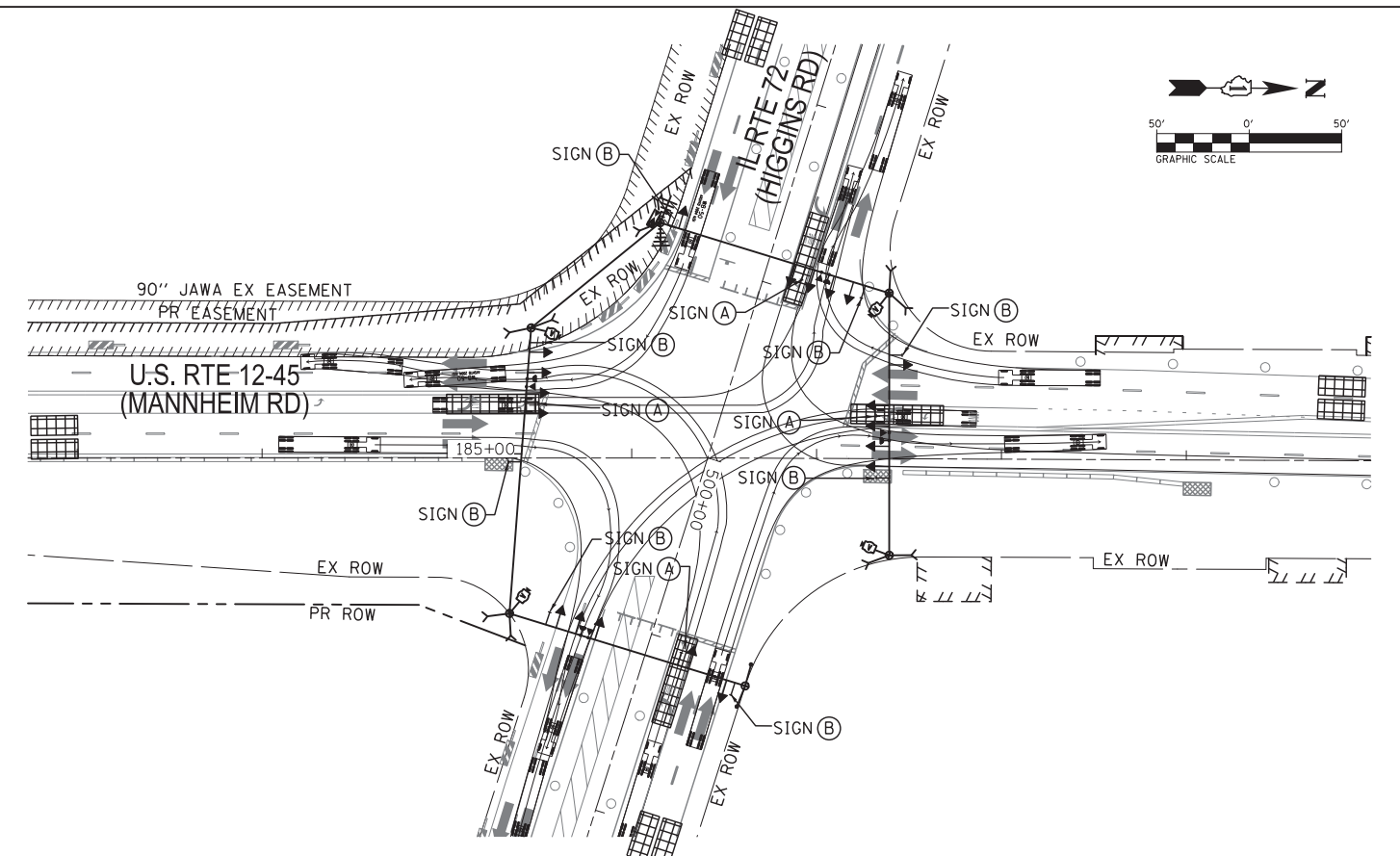


STAGE 1

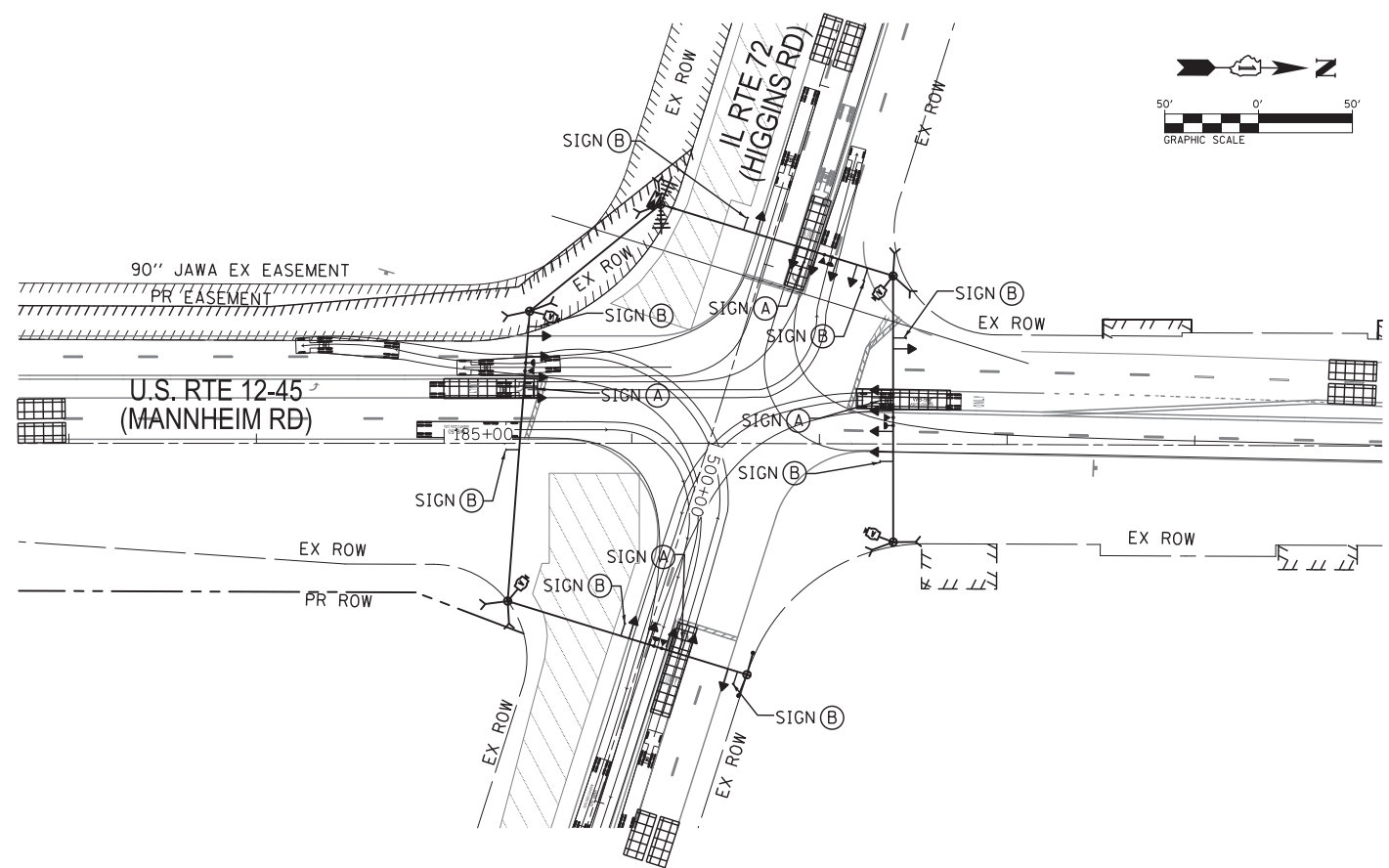
<p>DELTA ENGINEERING GROUP, LLC</p> <p>FILE NAME = c:\cadd\lib\pwr\mamuocad2\pwgreat.lakes\dms47849\0160P35-sht.tst15.dgn</p>	USER NAME = rnamuocad PLOT SCALE = *SCALE* PLOT DATE = 11/29/2012	DESIGNED JA DRAWN RM CHECKED HS DATE 10/19/2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN US RTE 12-45 (MANNHEIM RD) AND IL 72 (HIGGINS RD) (STAGE 1)			F.A.P. RTE. 330 SECTION 0105-WRS COUNTY COOK TOTAL SHEETS 537 SHEET NO. 248	CONTRACT NO. 60P35 ILLINOIS FED. AID PROJECT
	SCALE: SHEET NO. OF SHEETS STA. TO STA.				TS-15					



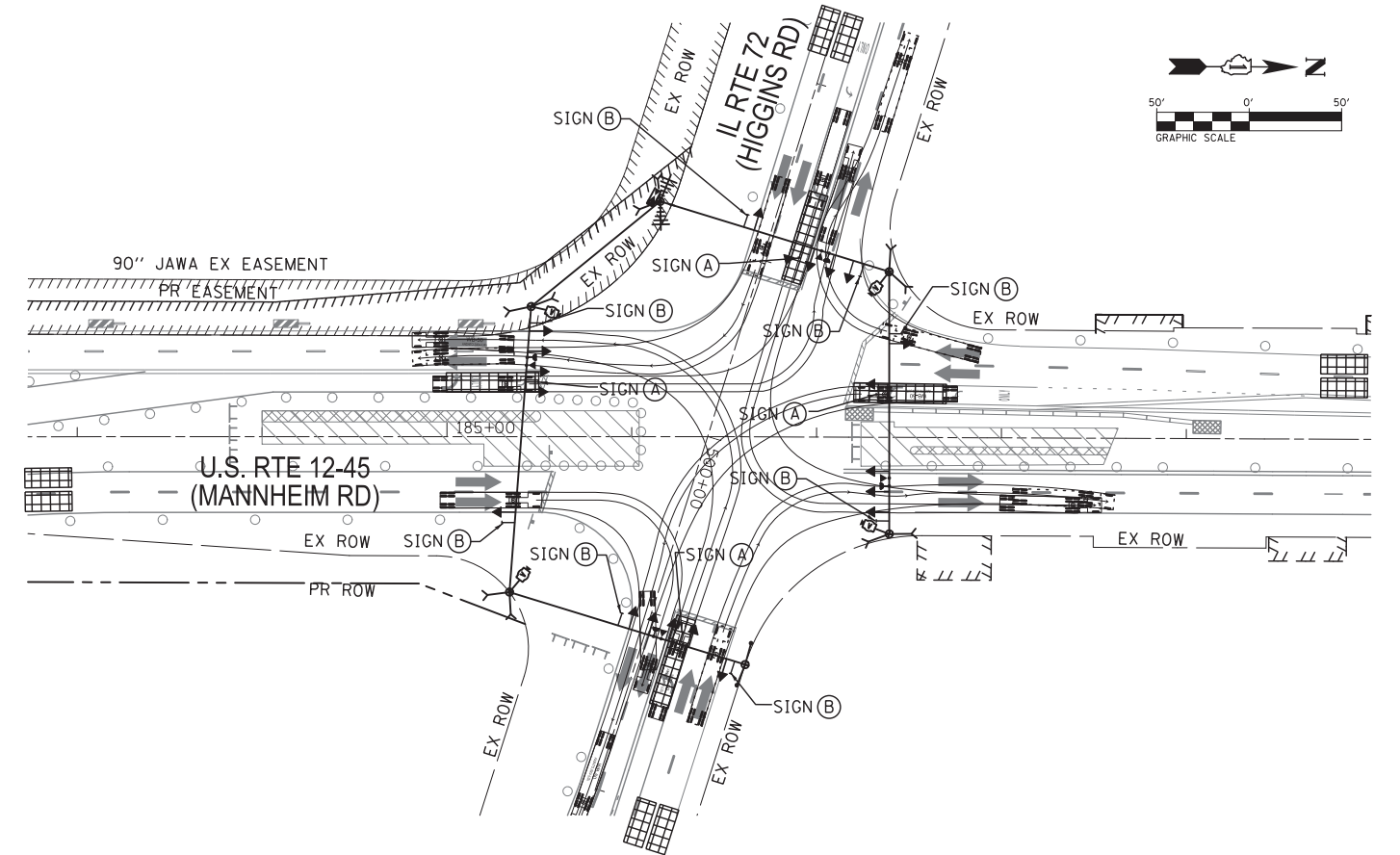
STAGE 1A



STAGE 1B



STAGE 1BB



STAGE 1C



USER NAME = rmmucod	DESIGNED JA	REVISED -
	DRAWN RM	REVISED -
PLOT SCALE = *SCALE*	CHECKED HS	REVISED -
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

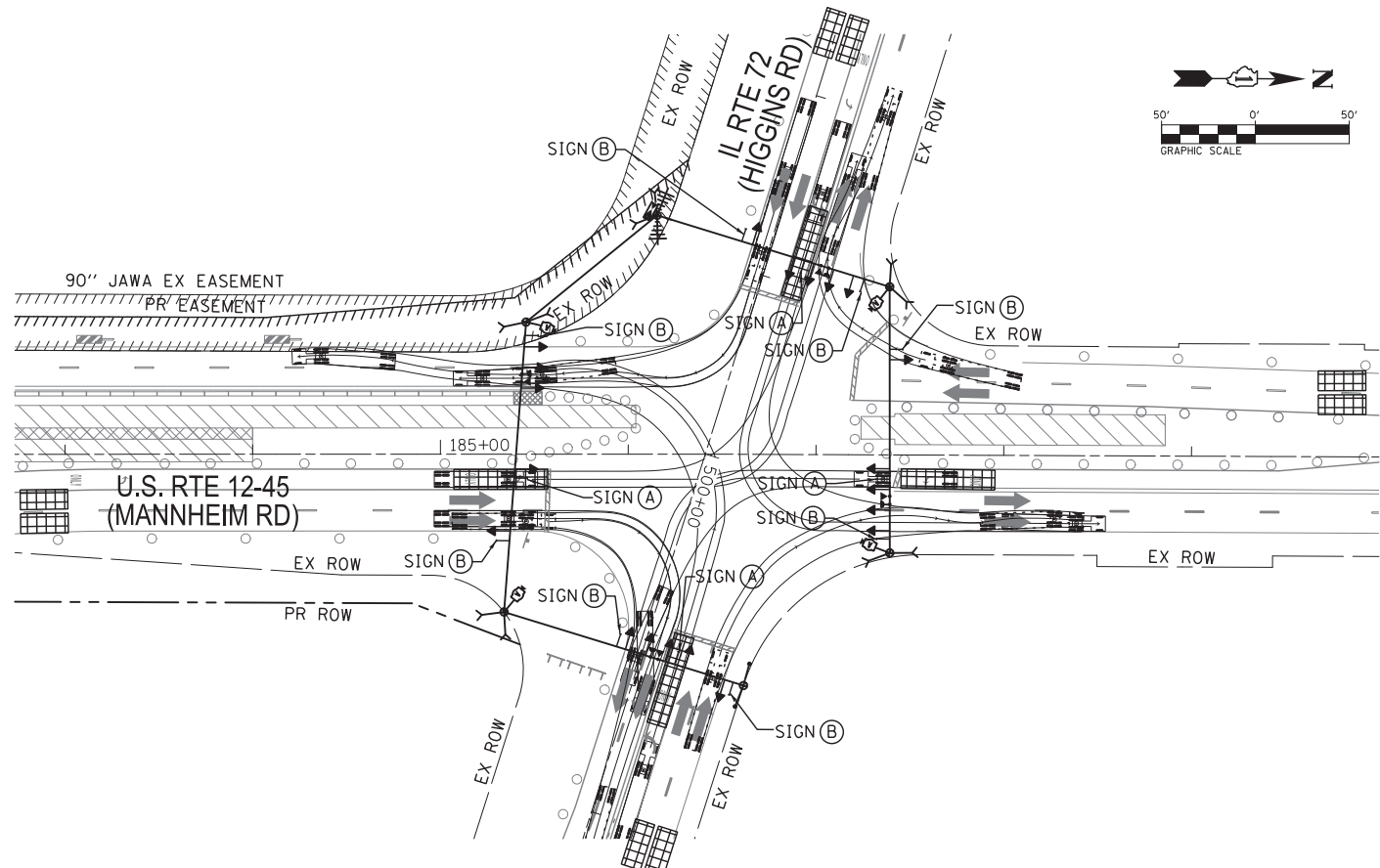
TEMPORARY TRAFFIC SIGNAL INSTALLATION FOR MAINTENANCE OF
TRAFFIC US RTE 12-45 (MANNHEIM RD) AND IL 72 (HIGGINS RD)
(SUB-STAGES 1A THRU STAGE 1C)

SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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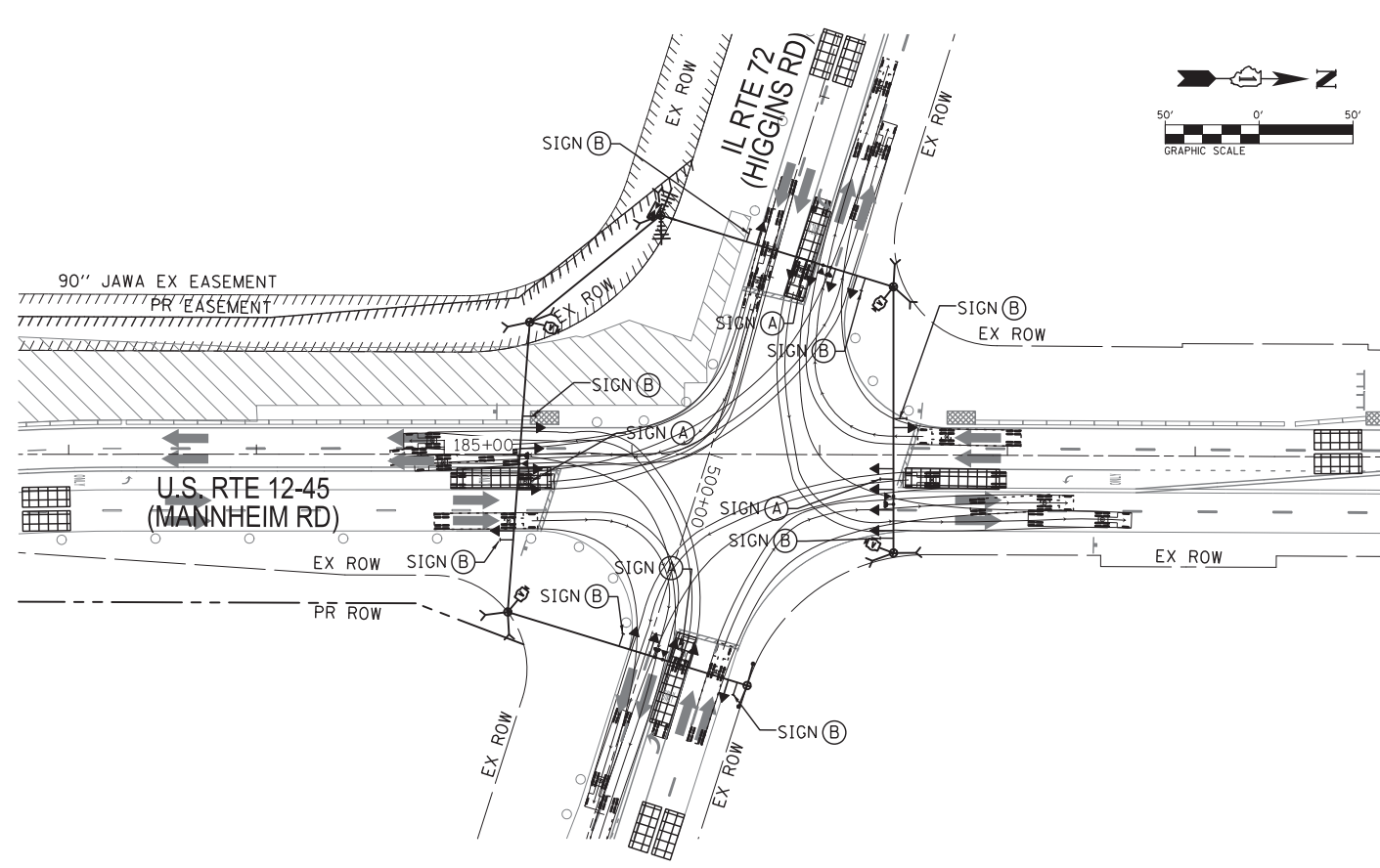
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	249
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

TS-16

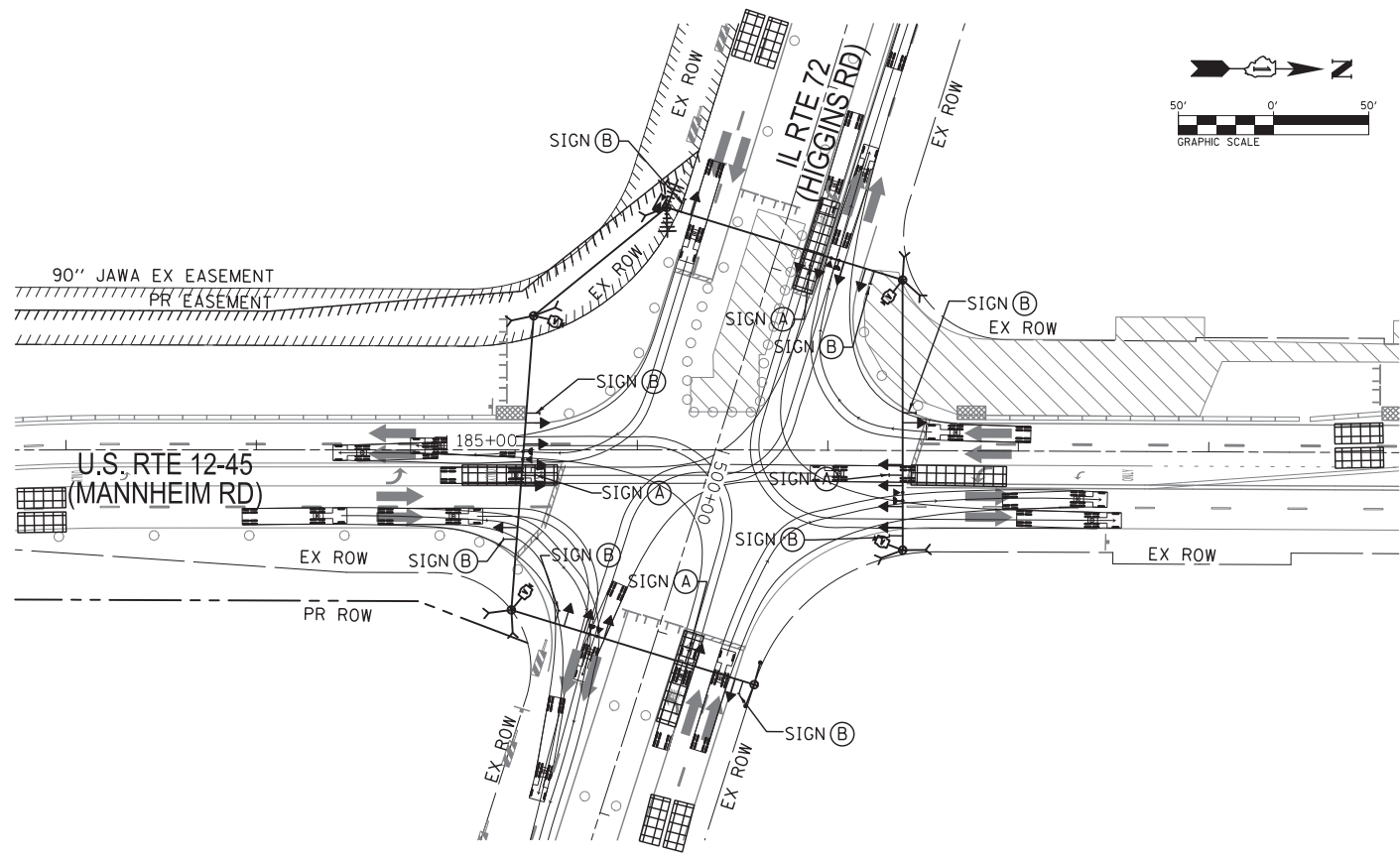
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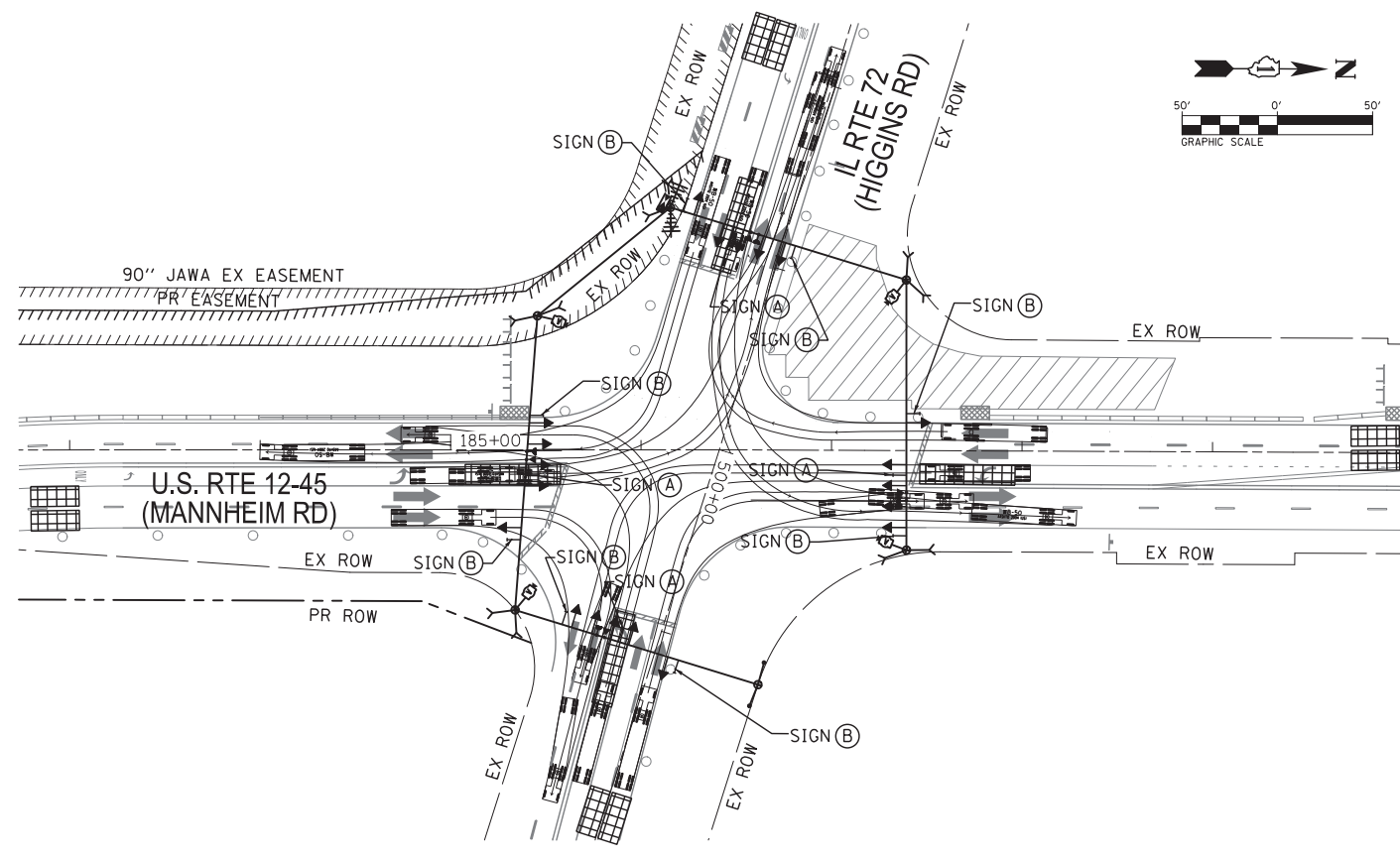
STAGE 1D



STAGE 2



STAGE 2A



STAGE 2B



USER NAME = rmmucod	DESIGNED JA	REVISED -
PLOT SCALE = *SCALE*	DRAWN RM	REVISED -
PLOT DATE = 11/29/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

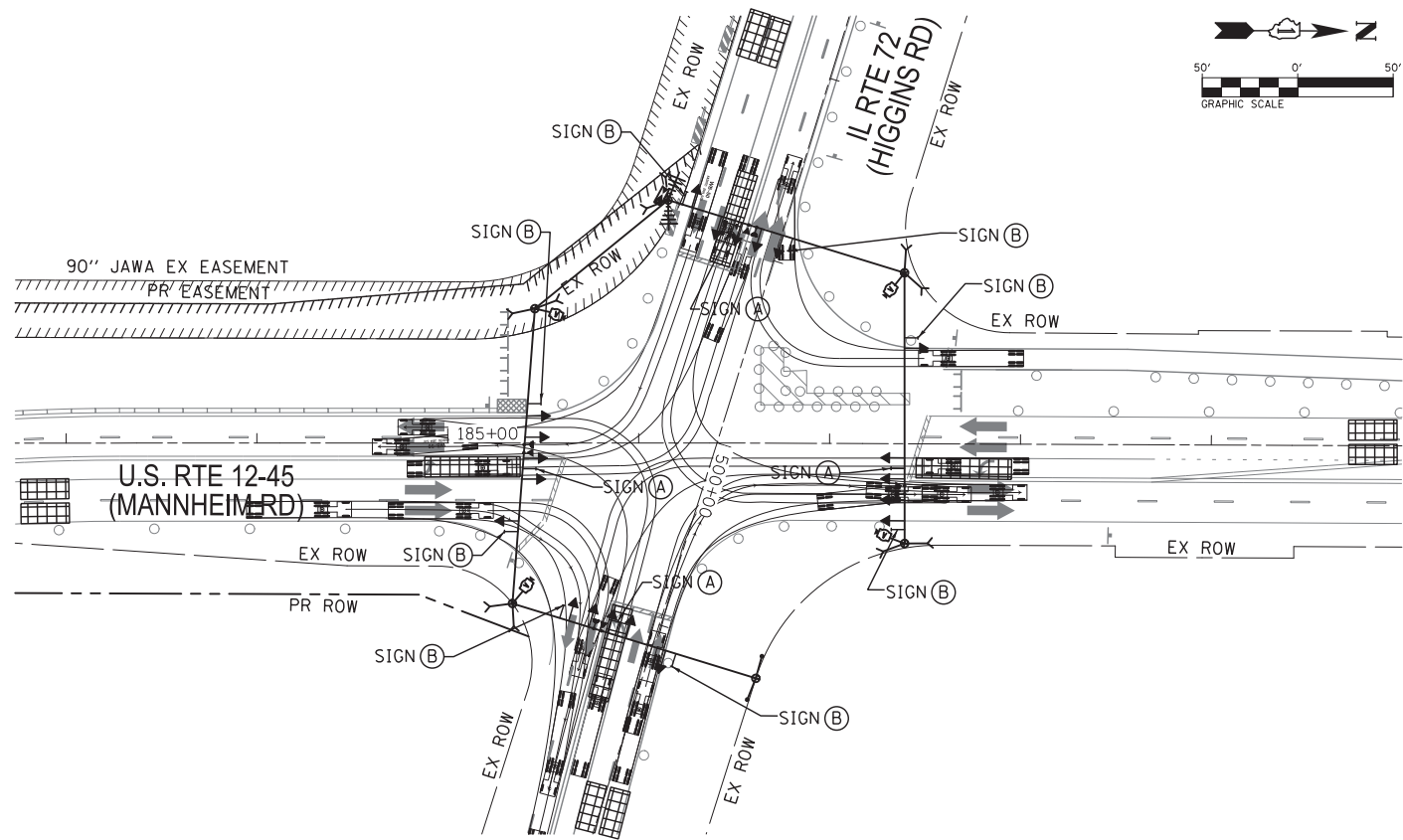
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
 US RTE 12-45 (MANNHEIM RD) AND IL 72 (HIGGINS RD)
 (SUB-STAGES 1D THRU STAGE 2B)

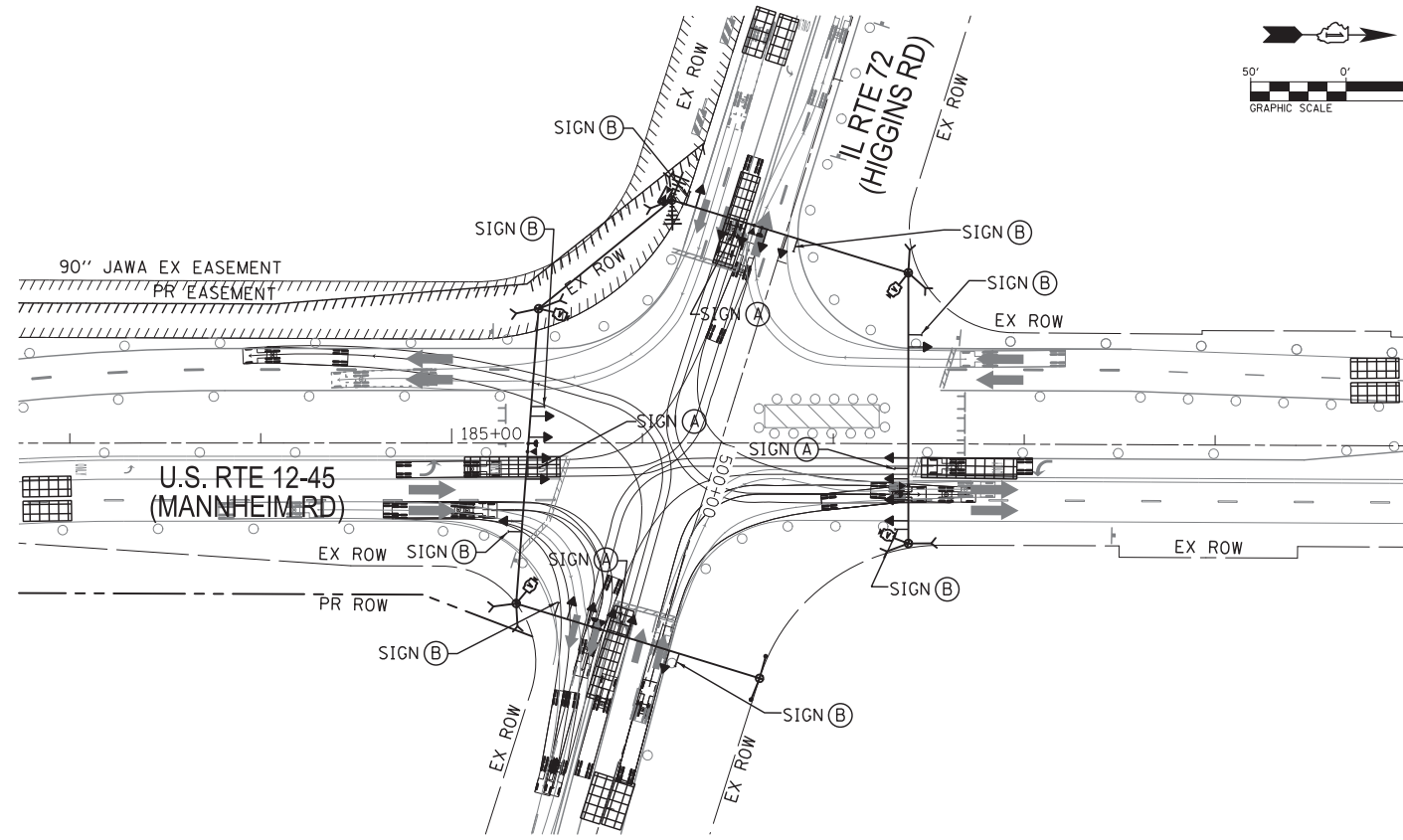
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 250
ILLINOIS FED. AID PROJECT				CONTRACT NO. 60P35

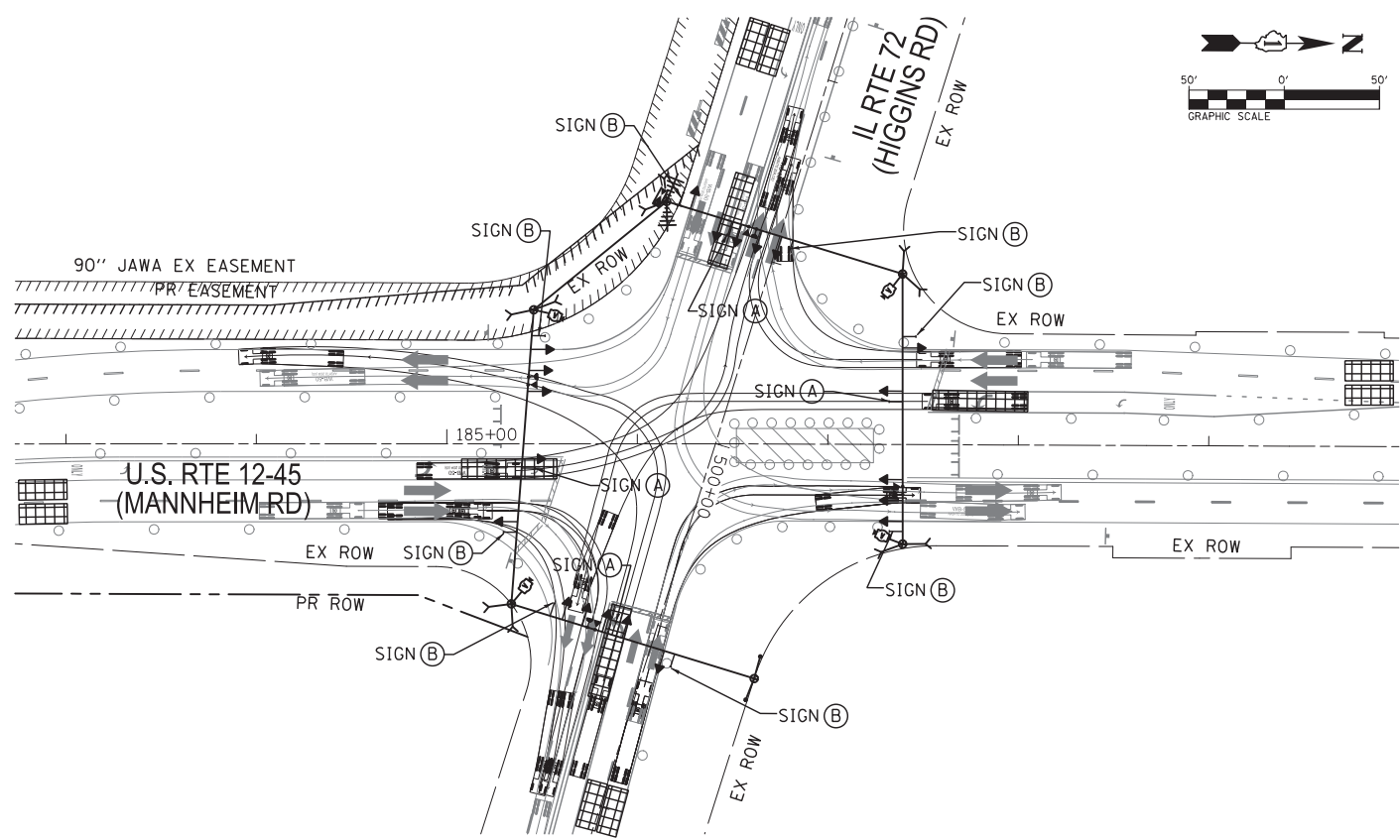
TS-17



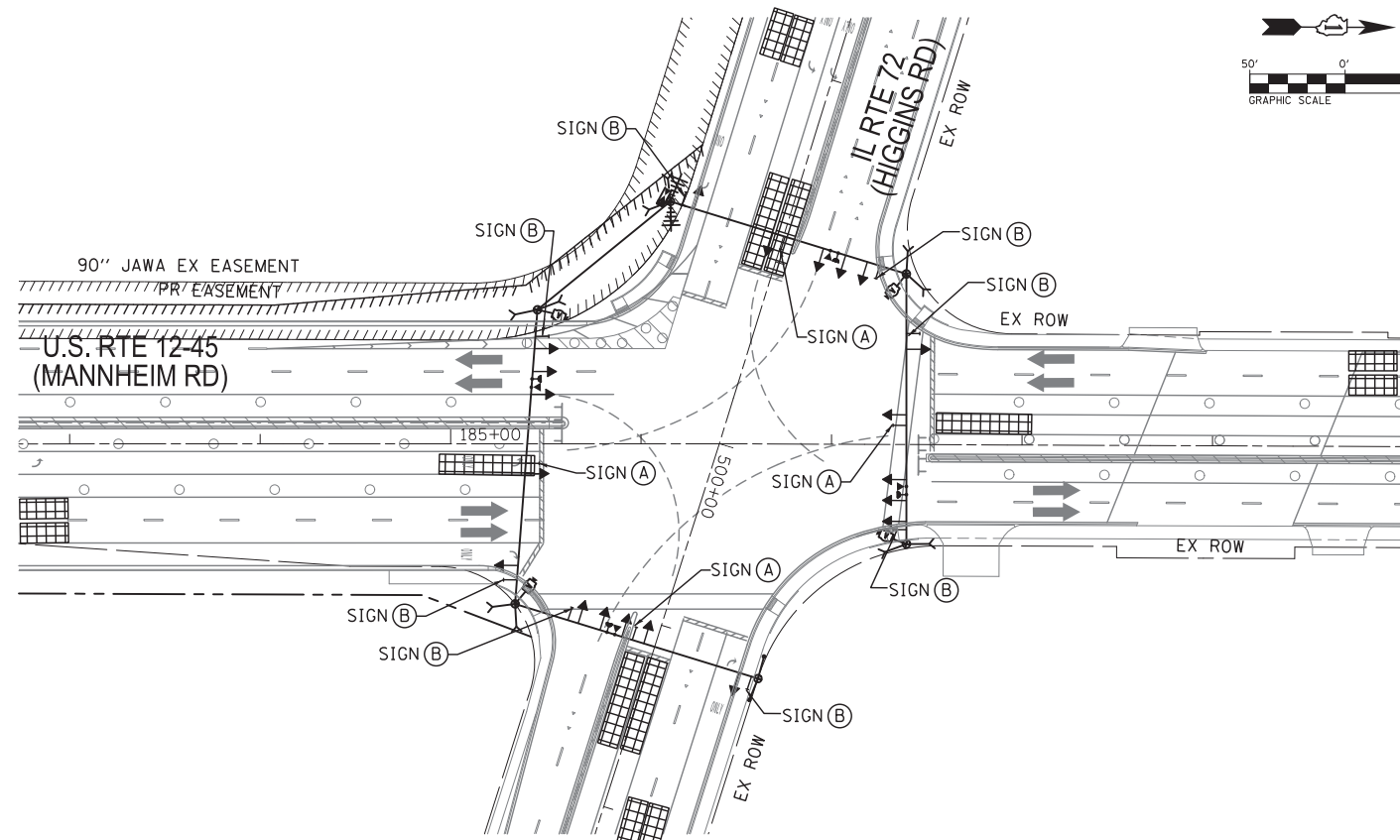
STAGE 2C



STAGE 2D

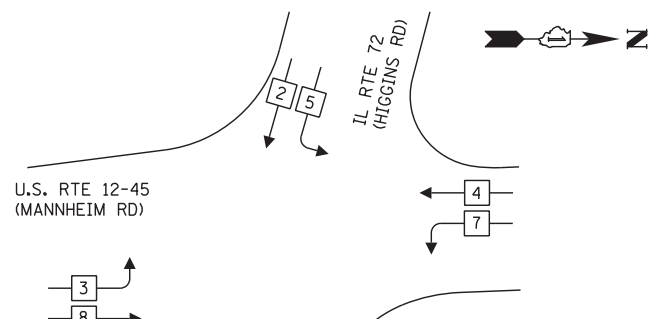


STAGE 2E

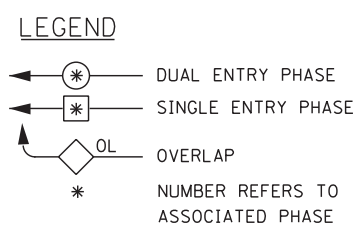
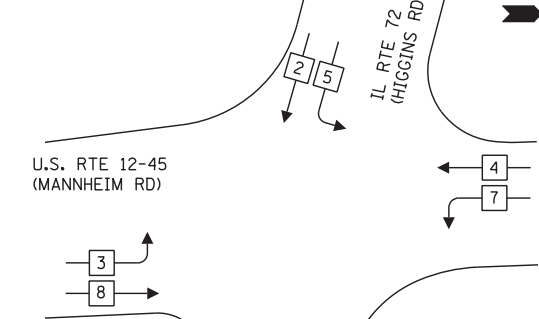


STAGE 3

CONTROLLER SEQUENCE
(STAGE 1, 1A, 1B, 1BB, 2 AND 3)

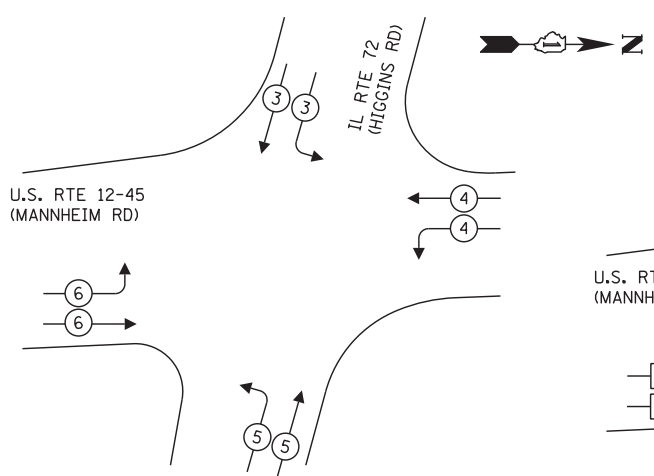


CONTROLLER SEQUENCE
(STAGE 1C)



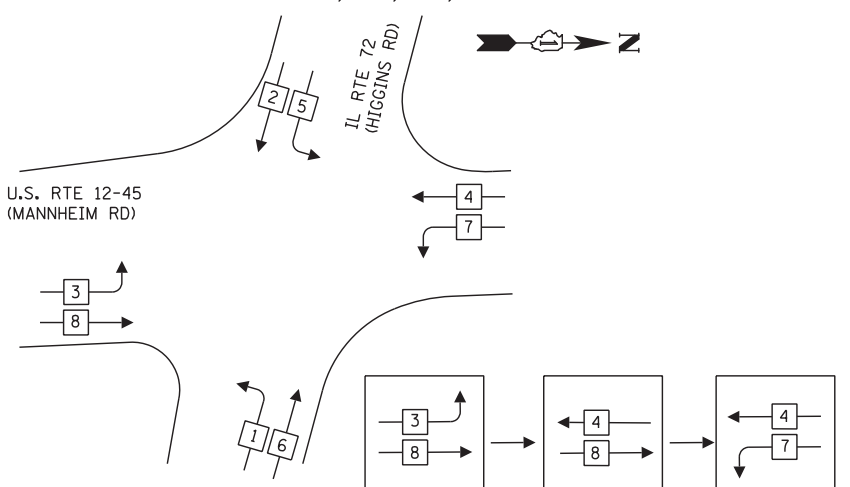
PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



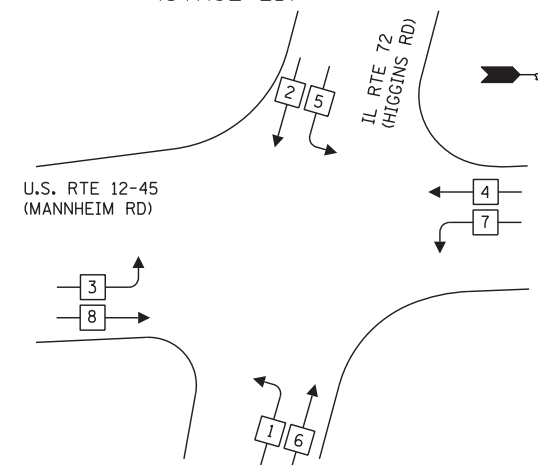
TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

CONTROLLER SEQUENCE
(STAGE 1D, 2A, 2B, 2C & 2E)



LEAD-LAG PHASING ALONG U.S. RTE 12-45 (MANNHEIM RD) TEMPORARY PHASING STAGE 1D, 2A, 2B, 2C & 2E

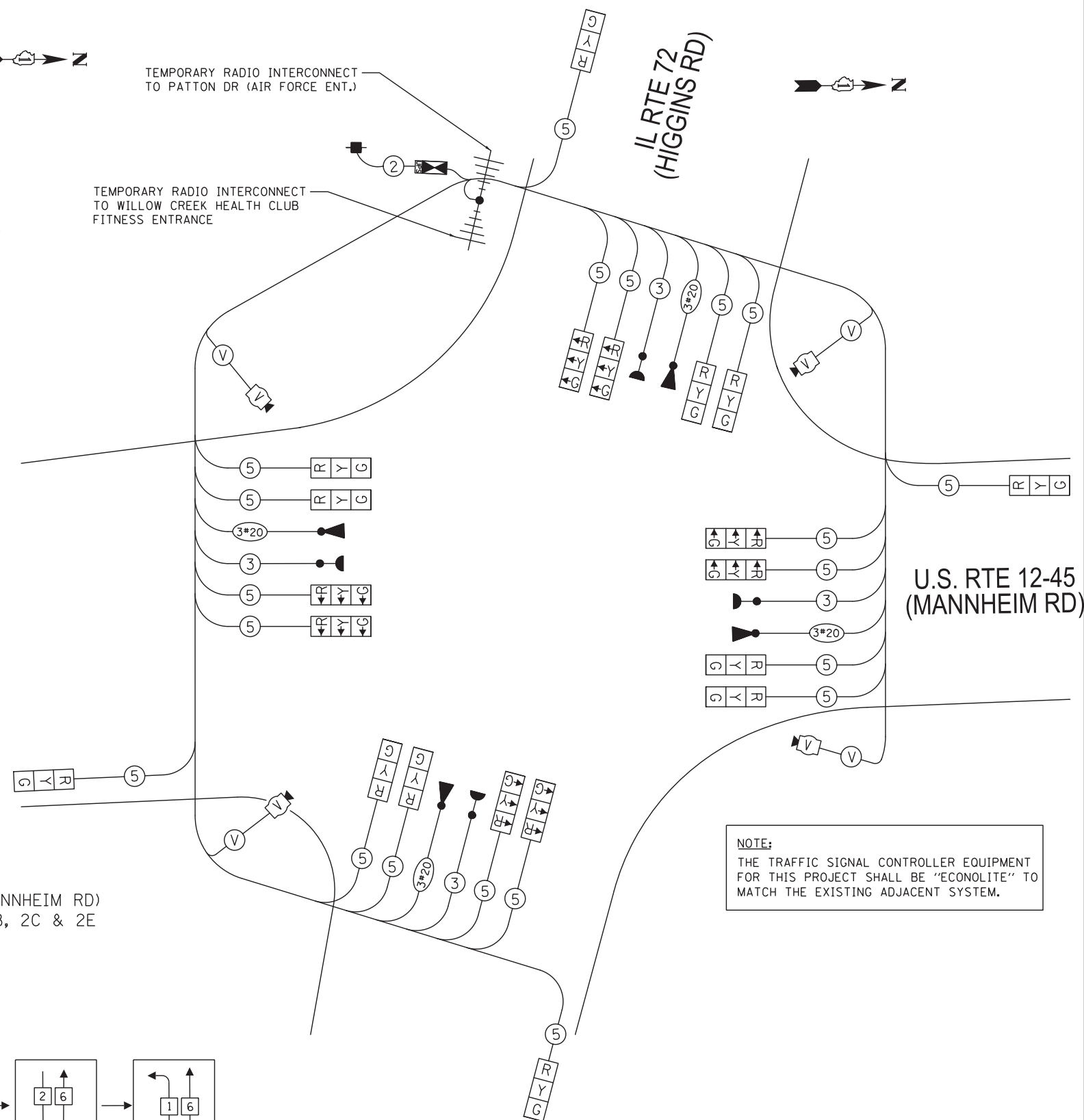
CONTROLLER SEQUENCE
(STAGE 2D)



LEAD-LAG PHASING ALONG IL 72 (HIGGINS RD) AND U.S. RTE 12-45 (MANNHEIM RD) TEMPORARY PHASING STAGE 2D

TEMPORARY RADIO INTERCONNECT TO PATTON DR (AIR FORCE ENT.)

TEMPORARY RADIO INTERCONNECT TO WILLOW CREEK HEALTH CLUB FITNESS ENTRANCE



TEMPORARY CABLE PLAN
STAGE 1 THRU 1D
STAGE 2 THRU 3

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	20	17	0.50	170	
(YELLOW)	20	25	0.25	125	
(GREEN)	20	15	0.25	75	
ARROW	-	12	0.10	-	
PED. SIGNAL	-	25	1.00	-	
CONTROLLER	-	100.00	1.00	100	
ILLUM. SIGN	-	-	-	-	
VIDEO SYSTEM	-	150.00	1.00	150	
FLASHER					
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY/DISTRICT 1 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096					TOTAL = 620
ENERGY SUPPLY CONTACT: STEVE FITZGERALD PHONE: (708) 235-2327 COMPANY: ComEd					

<p>DELTA ENGINEERING GROUP, LLC</p> <p>FILE NAME = c:\cadd\lib\pwr\mamuod2\pwgreat.lakes\dms47849\0160P35-sht.tsi9.dgn</p>	USER NAME = rmanuod	DESIGNED JA	REVISED -
	DRAWN RM	REVISIONS -	
	CHECKED HS	REVISIONS -	
	DATE 10/19/2012	REVISIONS -	

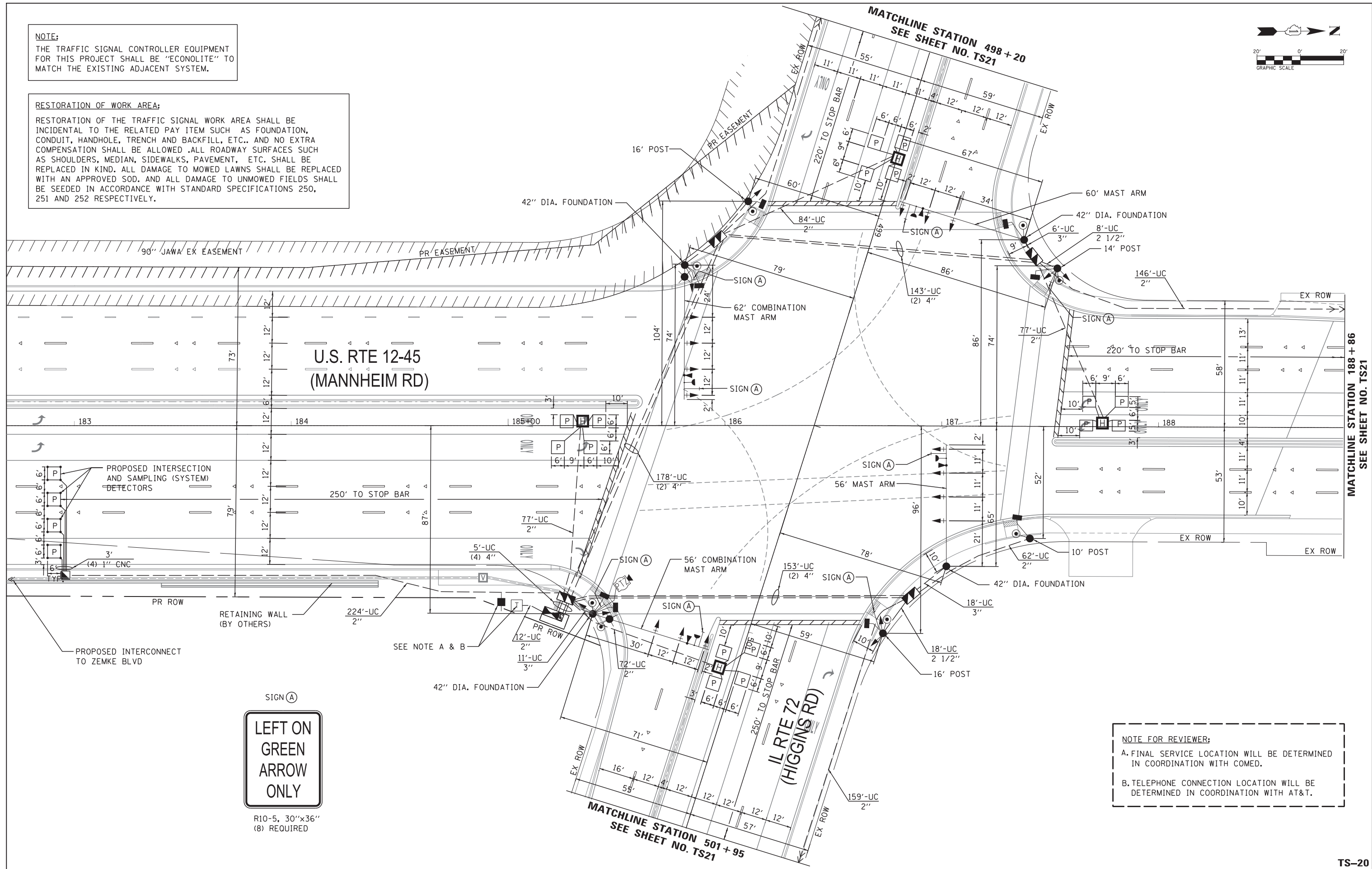
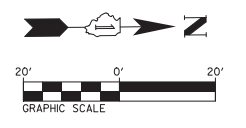
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN TEMPORARY PHASE DESIGNATION DIAGRAM AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE US RTE 12-45 (MANNHEIM RD) AND IL 72 (HIGGINS RD) (STAGE 1 TO STAGE 2E)

F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 252
ILLINOIS FED. AID PROJECT				CONTRACT NO. 60P35

NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 250, 251 AND 252 RESPECTIVELY.



R10-5, 30"x36"
 (8) REQUIRED

NOTE FOR REVIEWER:
 A. FINAL SERVICE LOCATION WILL BE DETERMINED IN COORDINATION WITH COMED.
 B. TELEPHONE CONNECTION LOCATION WILL BE DETERMINED IN COORDINATION WITH AT&T.



USER NAME = rmanucod	DESIGNED JA	REVISED -
	DRAWN RM	REVISED -
PLOT SCALE = *SCALE*	CHECKED HS	REVISED -
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

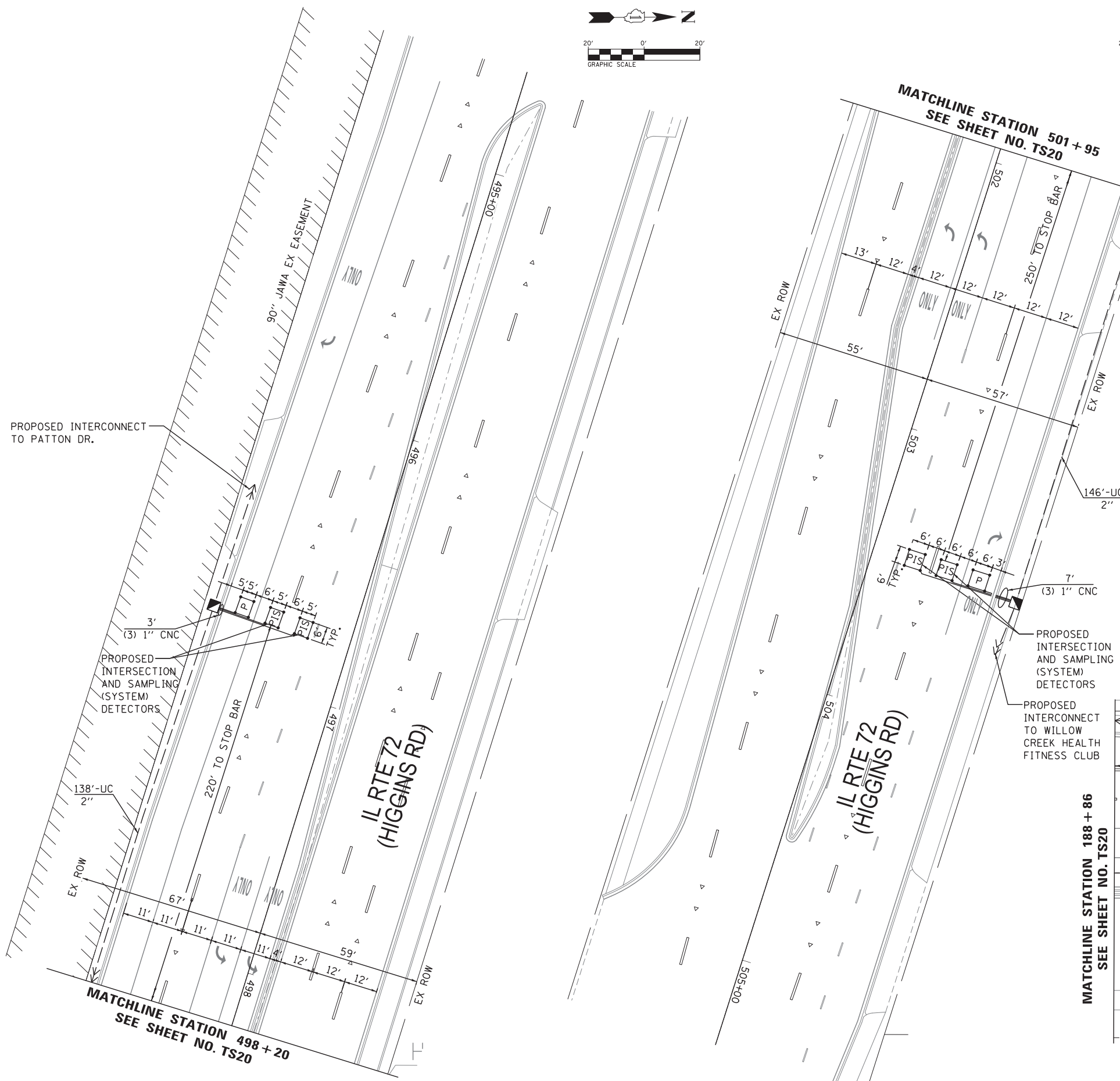
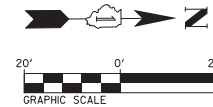
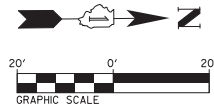
TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 12-45 (MANNHEIM RD) AND IL 72 (HIGGINS RD)
 (SHEETS 1 OF 2)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 253
CONTRACT NO. 60P35				ILLINOIS FED. AID PROJECT

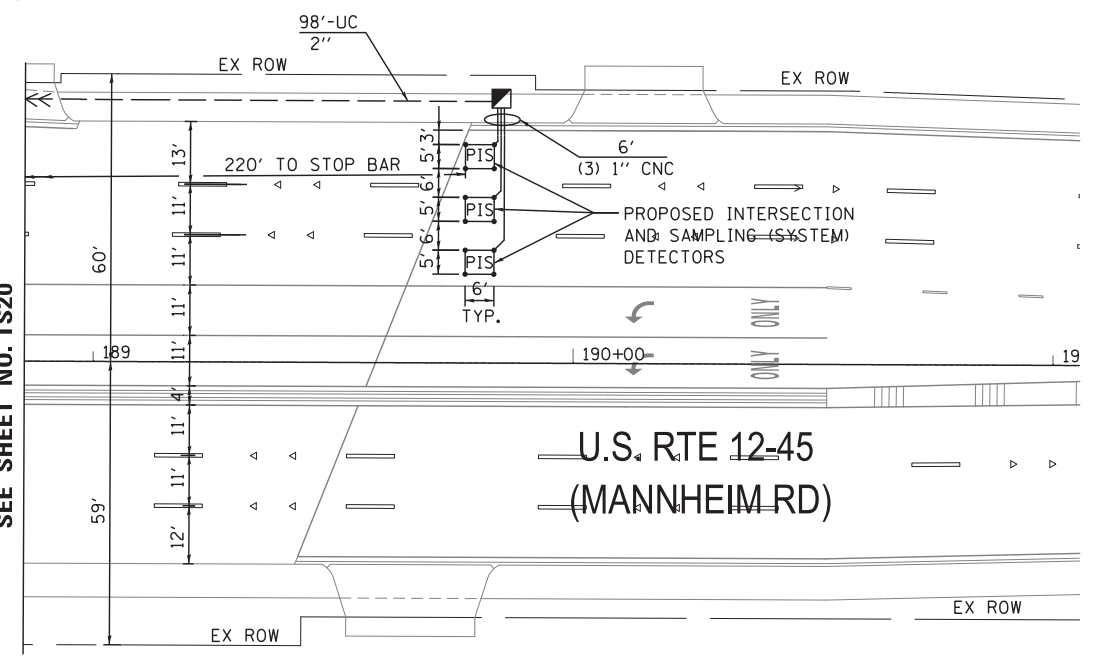
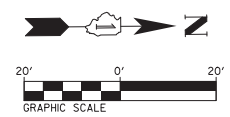
TS-20

FILE NAME = c:\cadd\lib\pwr\manucod2\pwgreat.lakes\dms47849\0160P35-sht.ts20.dgn



NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED .ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 250, 251 AND 252 RESPECTIVELY.



USER NAME = rmmucod	DESIGNED JA	REVISED -
PLOT SCALE = *SCALE*	DRAWN RM	REVISED -
PLOT DATE = 11/14/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
 US RTE 12-45 (MANNHEIM RD) AND IL 72 (HIGGINS RD)
 (SHEETS 2 OF 2)**

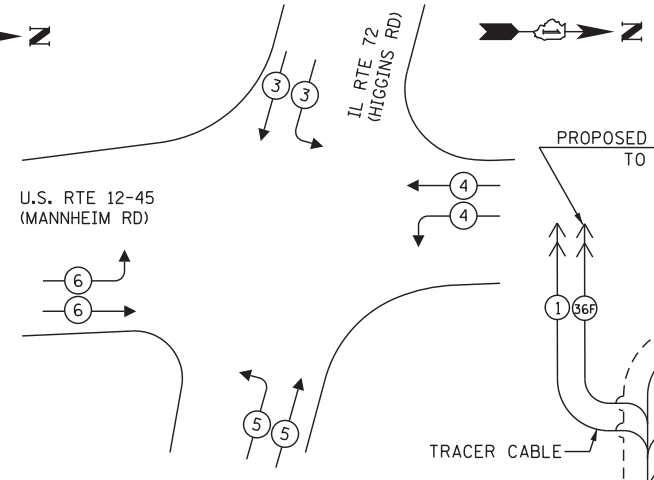
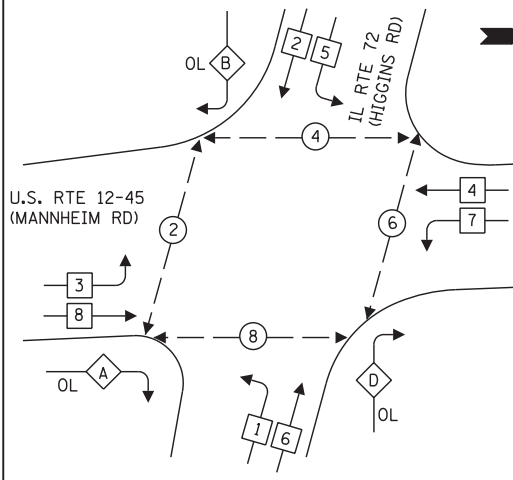
F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 254
				CONTRACT NO. 60P35
ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO. OF SHEETS STA. TO STA.

CONTROLLER SEQUENCE

EMERGENCY VEHICLE PREEMPTION SEQUENCE

SCHEDULE OF QUANTITIES



LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 8 +	1
B	= 2 +	3
D	= 6 +	7

NOTE:
1. INTERSECTION COMBINATION LIGHTS MAINTAINED BY IDOT.

PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

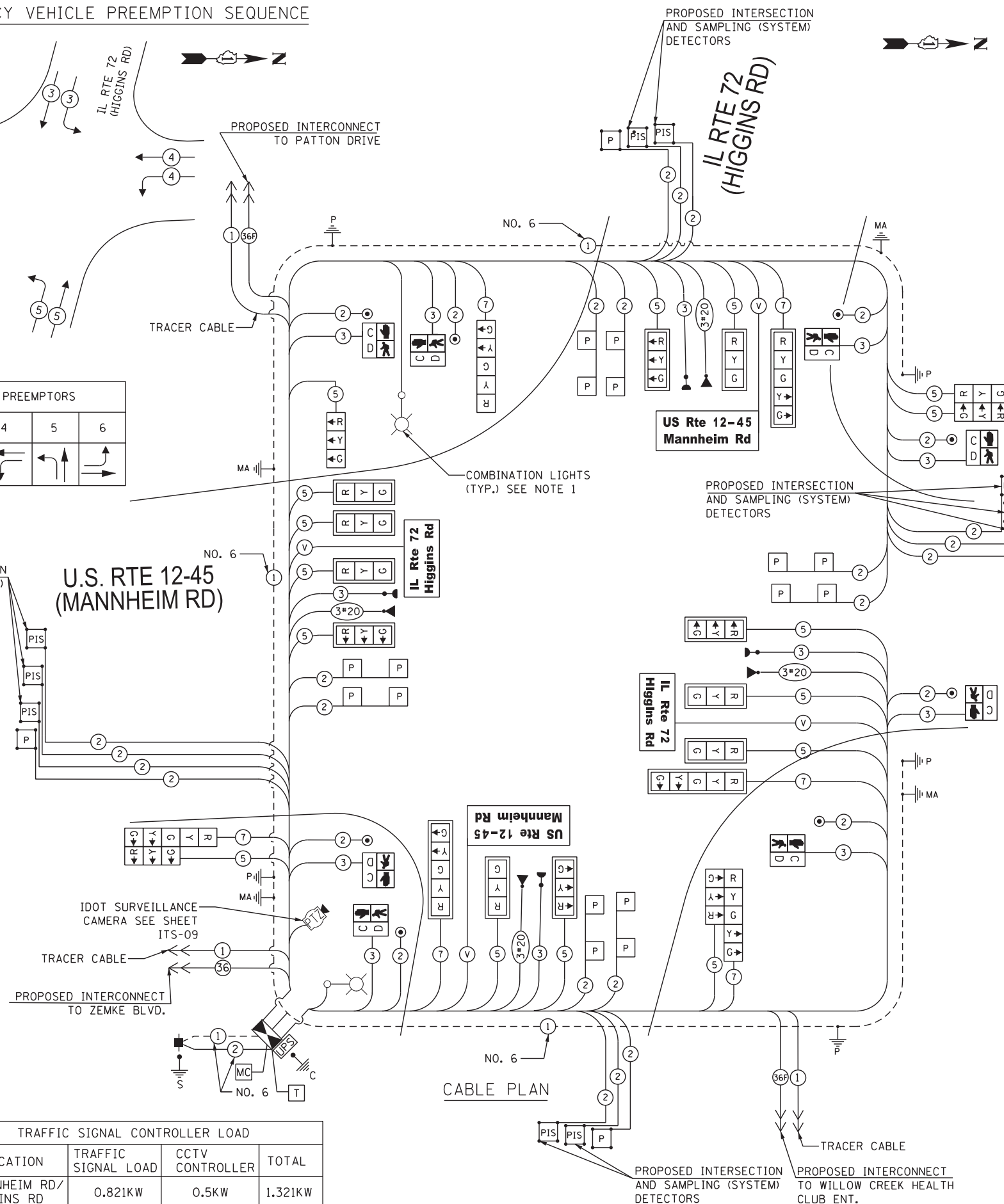
U.S. RTE 12-45 (MANNHEIM RD)

IL Rte 72 Higgins Rd

US Rte 12-45 Mannheim Rd

PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

CABLE PLAN



NO.	PAY ITEM DESCRIPTION	UNIT	MANHEIM RD / HIGGINS RD
1	SIGN PANEL - TYPE 1	SQ FT	60.00
2	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1,403
3	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	77
4	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	50
5	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	907
6	HANDHOLE	EACH	5
7	HEAVY-DUTY HANDHOLE	EACH	4
8	DOUBLE HANDHOLE	EACH	3
9	TRANSCIVER - FIBER OPTIC	EACH	1
10	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,845
11	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3,096
12	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3,979
13	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,199
14	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAR	FOOT	7,331
15	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	111
16	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,816
17	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 10 FT.	EACH	1
18	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT.	EACH	1
19	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 18 FT.	EACH	2
20	STEEL MAST ARM ASSEMBLY AND POLE, 58 FT.	EACH	1
21	STEEL MAST ARM ASSEMBLY AND POLE, 60 FT.	EACH	1
22	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 56 FT.	EACH	1
23	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 62 FT.	EACH	1
24	CONCRETE FOUNDATION, TYPE A	FOOT	20
25	CONCRETE FOUNDATION, TYPE C	FOOT	4
26	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	84
27	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	11
28	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
29	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
30	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
31	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
32	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
33	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	7
34	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
35	TRAFFIC SIGNAL BACKPLATE LOUVERED, ALUMINUM	EACH	14
36	INDUCTIVE LOOP DETECTOR	EACH	21
37	PREFORMED DETECTOR LOOP	FOOT	1,020
38	LIGHT DETECTOR	EACH	4
39	LIGHT DETECTOR AMPLIFIER	EACH	1
40	PEDESTRIAN PUSH-BUTTON	EACH	8
41	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
42	ILLUMINATED SIGN, LED	EACH	4
43	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
44	REMOVE EXISTING HANDHOLE	EACH	21
45	REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
46	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1,002
47	SERVICE INSTALLATION (SPECIAL)	EACH	1
48	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
49	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
50	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

* 100% COST TO VILLAGE OF ROSEMONT.

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	22		17	0.50	187.00
(YELLOW)	22		25	0.25	137.50
(GREEN)	22		15	0.25	82.50
ARROW	12		12	0.10	14.40
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	4		25	0.50	100.00
VIDEO SYSTEM	-		-	1.00	-
FLASHER					
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY/DISTRICT 1 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096					TOTAL = 821.40
ENERGY SUPPLY CONTACT: STEVE FITZGERALD PHONE: (708) 235-2327 COMPANY: ComEd					

TRAFFIC SIGNAL CONTROLLER LOAD			
LOCATION	TRAFFIC SIGNAL LOAD	CCTV CONTROLLER	TOTAL
MANHEIM RD/HIGGINS RD	0.821KW	0.5KW	1.321KW

DELTA ENGINEERING GROUP, LLC
 USER NAME = rmanucod
 DESIGNED JA
 DRAWN RM
 PLOT SCALE = *SCALE*
 CHECKED HS
 PLOT DATE = 11/29/2012
 DATE 10/19/2012

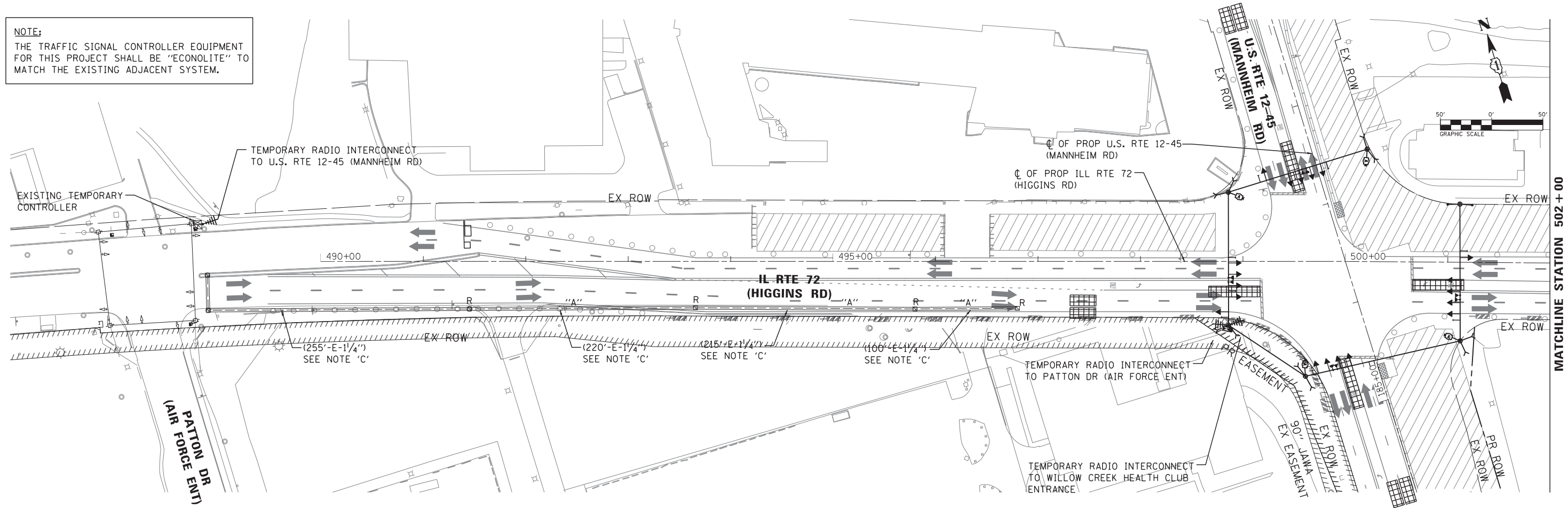
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
 REVISIONS:
 REVISED -
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

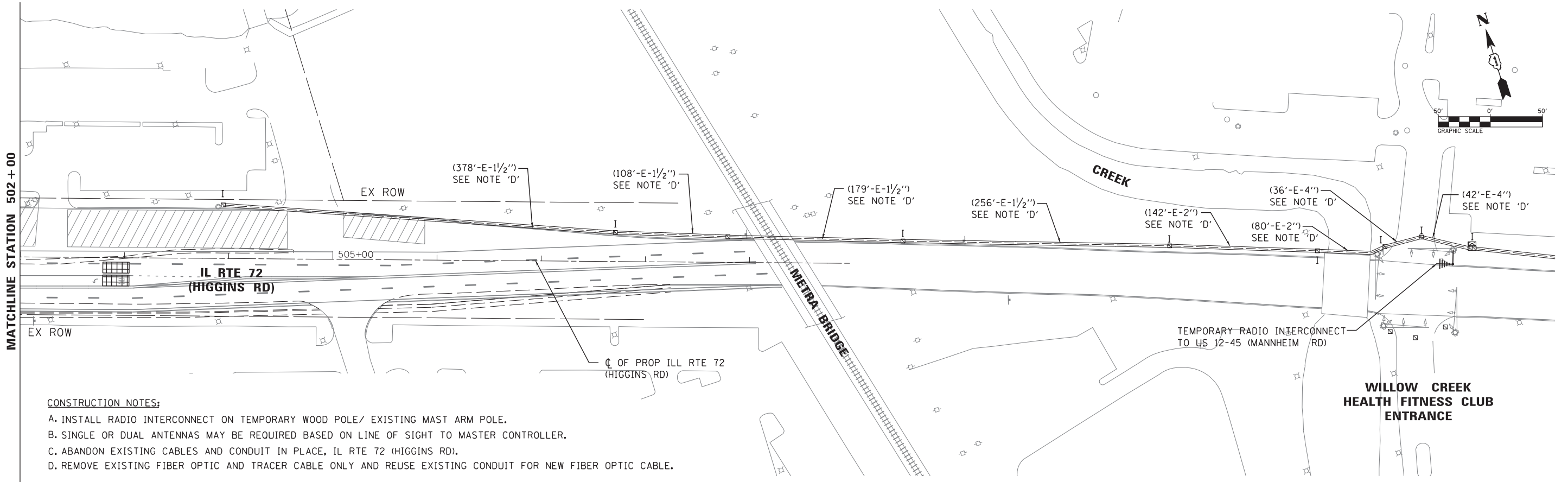
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 US RTE 12-45 (MANNHEIM RD) AND IL 72 (HIGGINS RD)

F.A.P. RT. 330 SECTION 0105-WRS COUNTY COOK TOTAL SHEETS 537 SHEET NO. 255 CONTRACT NO. 60P35 ILLINOIS FED. AID PROJECT

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



MATCHLINE STATION 502 + 00



- CONSTRUCTION NOTES:**
- A. INSTALL RADIO INTERCONNECT ON TEMPORARY WOOD POLE/ EXISTING MAST ARM POLE.
 - B. SINGLE OR DUAL ANTENNAS MAY BE REQUIRED BASED ON LINE OF SIGHT TO MASTER CONTROLLER.
 - C. ABANDON EXISTING CABLES AND CONDUIT IN PLACE, IL RTE 72 (HIGGINS RD).
 - D. REMOVE EXISTING FIBER OPTIC AND TRACER CABLE ONLY AND REUSE EXISTING CONDUIT FOR NEW FIBER OPTIC CABLE.



USER NAME = rmanucod	DESIGNED JA	REVISED -
PLOT SCALE = *SCALE*	DRAWN RM	REVISED -
PLOT DATE = 11/29/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN
IL 72 (HIGGINS RD) FROM US RTE 12-45 (MANNHEIM RD)
TO PATTON DR AND WILLOW CREEK HEALTH CLUB ENT (SHEET 1 OF 2)**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

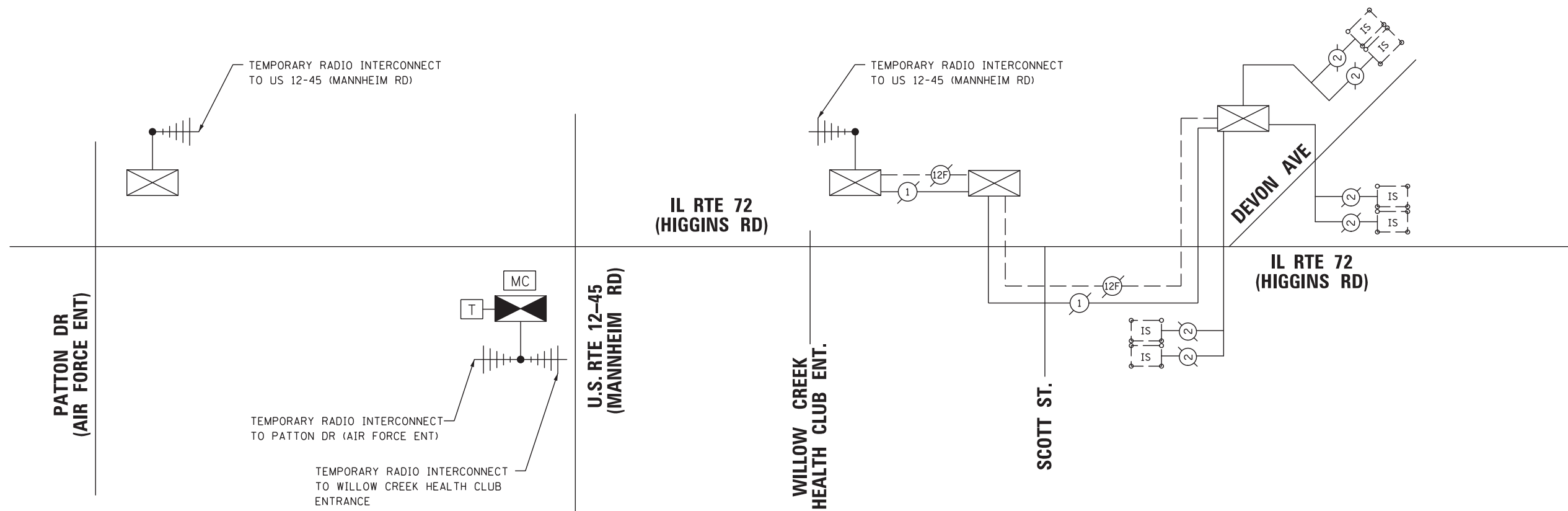
F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 256
				CONTRACT NO. 60P35
ILLINOIS FED. AID PROJECT				

TS-23

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N.T.S.



NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS-24



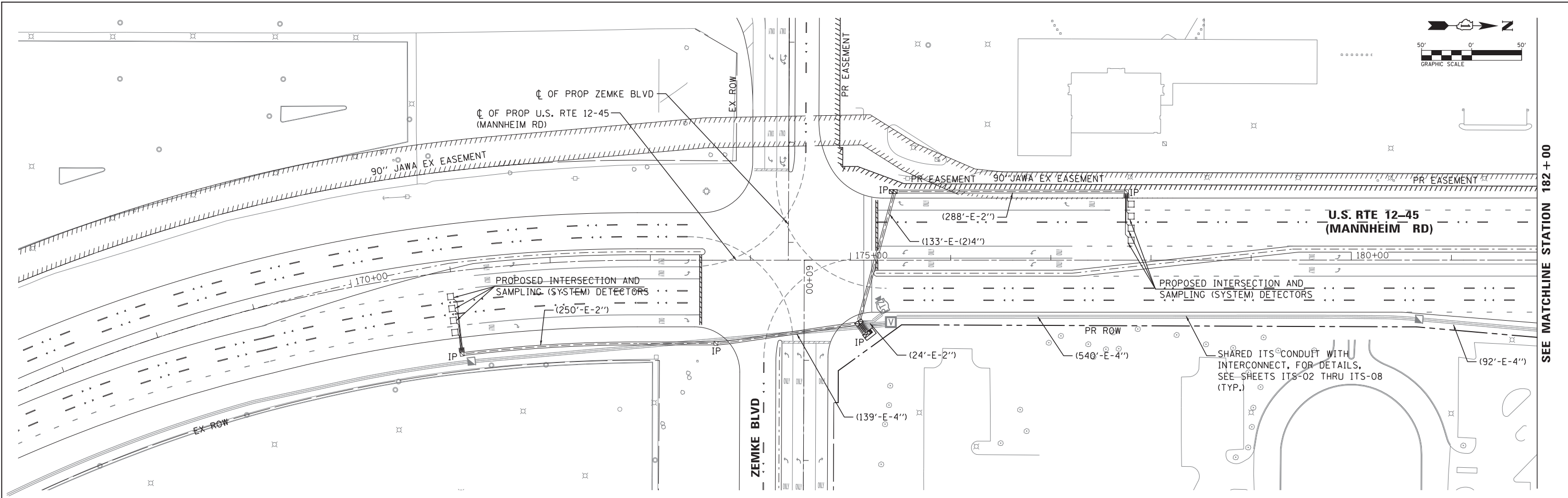
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	DRAWN RM	REVISED -
PLOT SCALE = *SCALE*	CHECKED HS	REVISED -
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

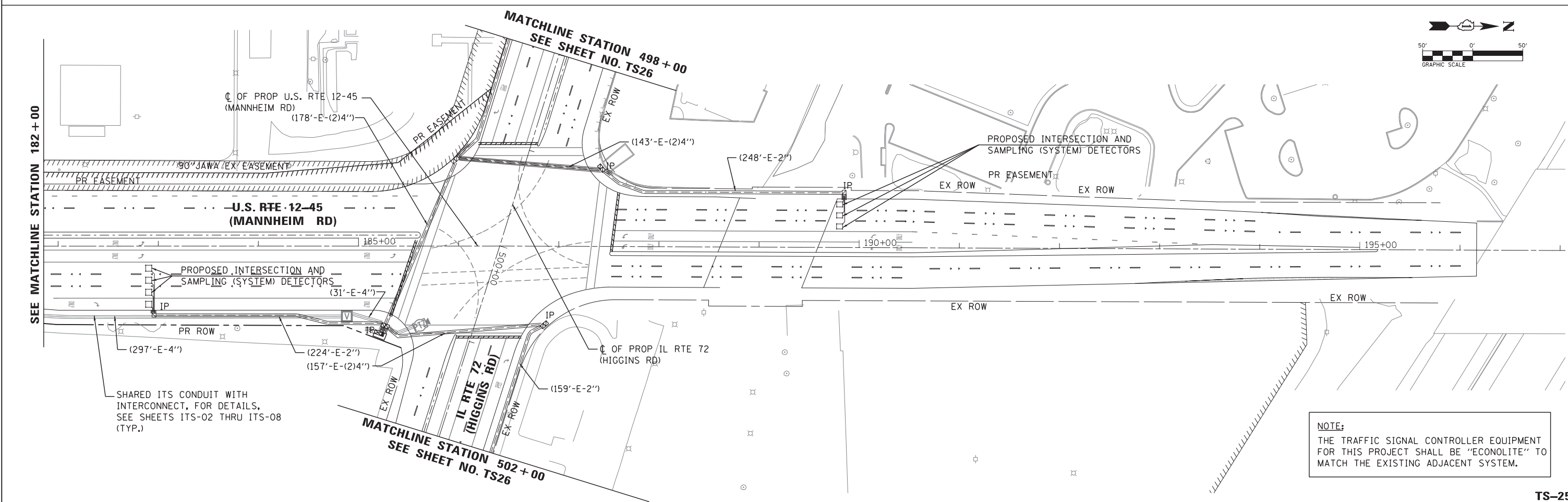
TEMPORARY INTERCONNECT SCHEMATIC PLAN
IL 72 (HIGGINS RD) FROM US RTE 12-45 (MANNHEIM RD)
TO DEVON AVE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	257
				CONTRACT NO. 60P35
ILLINOIS FED. AID PROJECT				

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SEE MATCHLINE STATION 182 + 00



SEE MATCHLINE STATION 182 + 00

MATCHLINE STATION 498 + 00
SEE SHEET NO. TS26

MATCHLINE STATION 502 + 00
SEE SHEET NO. TS26

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = rmmucod	DESIGNED JA	REVISED -
PLOT SCALE = *SCALE*	DRAWN RM	REVISED -
PLOT DATE = 11/29/2012	CHECKED HS	REVISED -
	DATE 10/19/2012	REVISED -

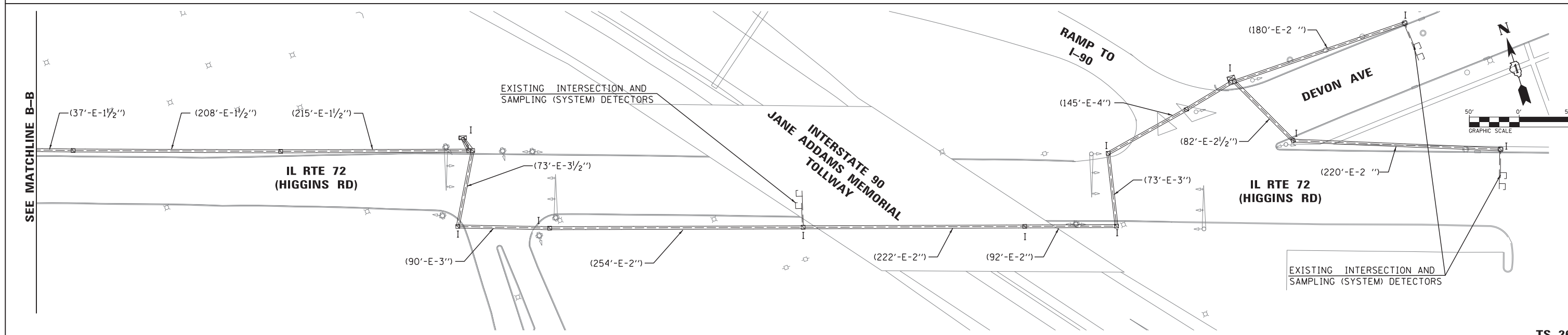
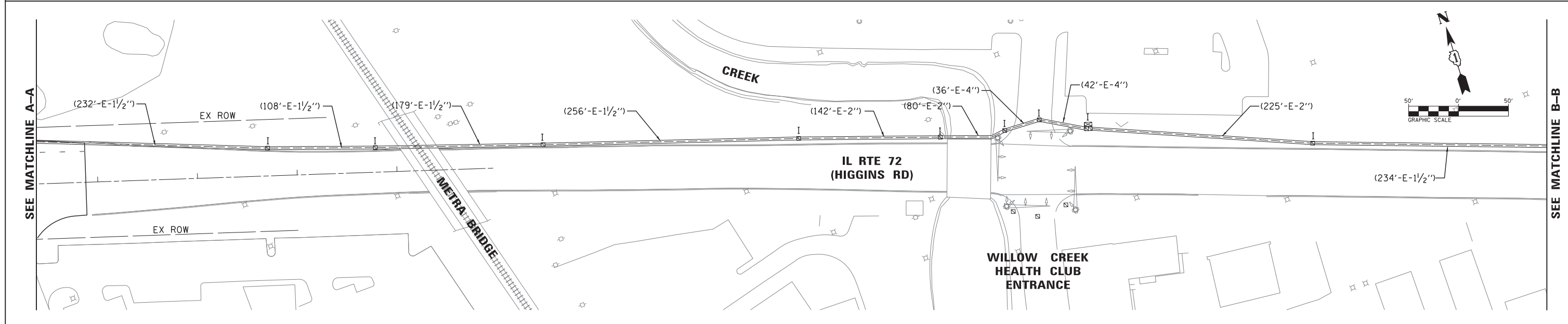
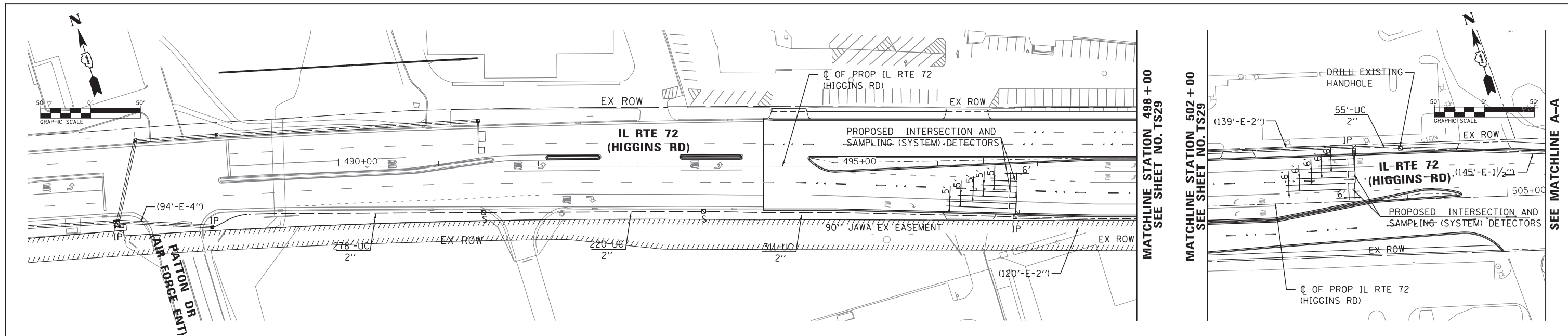
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN
US RTE 12-45 (MANNHEIM RD) FROM ZEMKE BLVD
TO IL 72 (HIGGINS RD) (SHEET 1 OF 2)**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

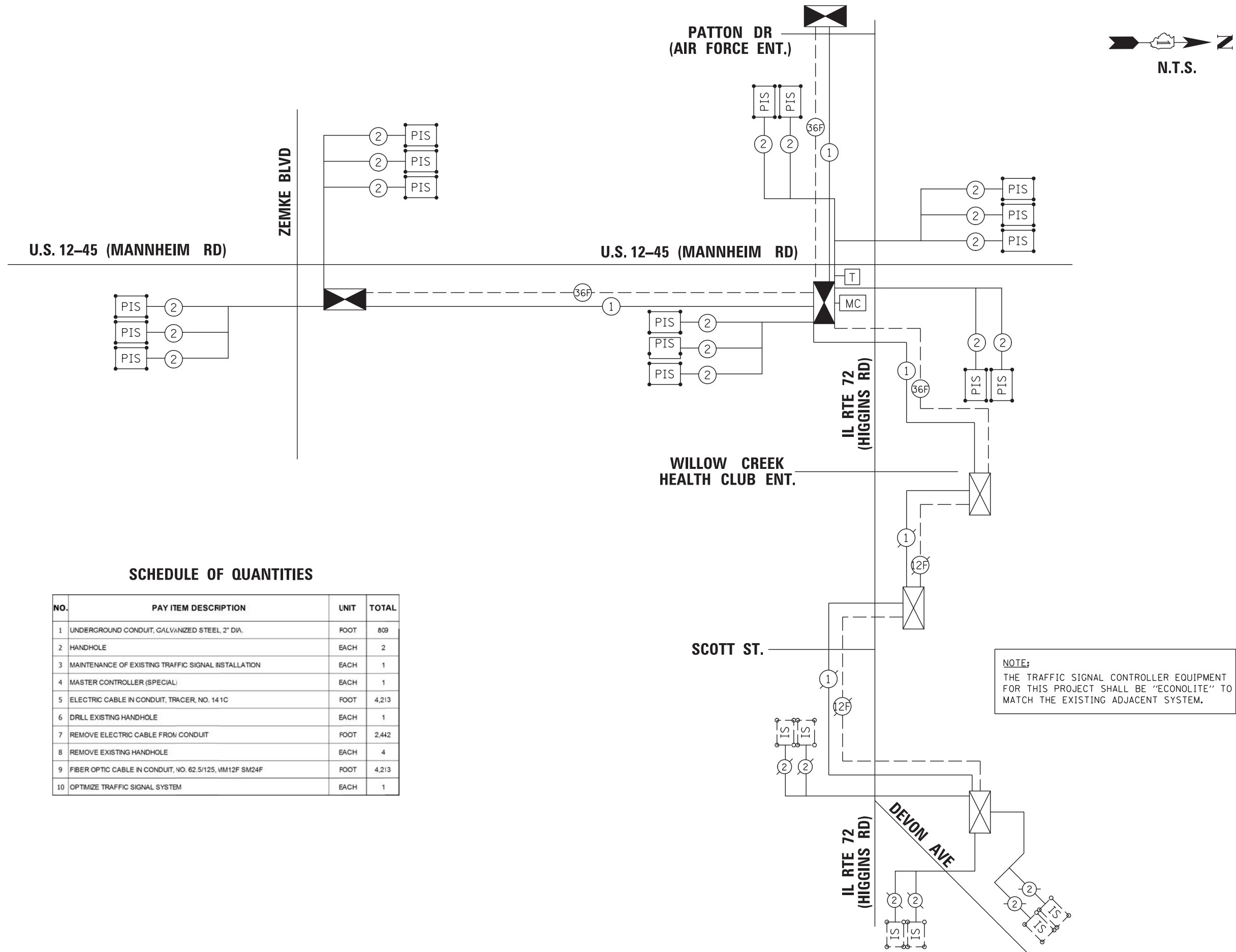
F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 258
				CONTRACT NO. 60P35
ILLINOIS FED. AID PROJECT				

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	PLOT SCALE = *SCALE*	CHECKED HS	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 60P35 ILLINOIS FED. AID PROJECT			
	PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -										

TS-26



SCHEDULE OF QUANTITIES

NO.	PAY ITEM DESCRIPTION	UNIT	TOTAL
1	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	809
2	HANDHOLE	EACH	2
3	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
4	MASTER CONTROLLER (SPECIAL)	EACH	1
5	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 141C	FOOT	4,213
6	DRILL EXISTING HANDHOLE	EACH	1
7	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,442
8	REMOVE EXISTING HANDHOLE	EACH	4
9	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	4,213
10	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS-27



USER NAME = rmemucod	DESIGNED JA	REVISED -
	DRAWN RM	REVISED -
PLOT SCALE = *SCALE*	CHECKED HS	REVISED -
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -

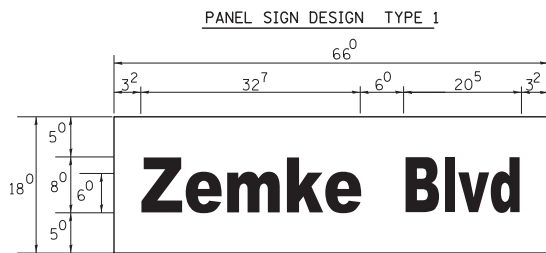
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT SCHEMATIC PLAN
IL 72 (HIGGINS RD) FROM US RTE 12-45 (MANNHEIM RD)
TO PATTON DR AND DEVON AVE**

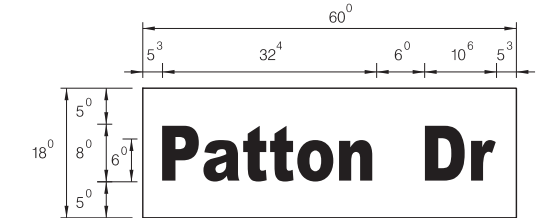
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 260
CONTRACT NO. 60P35				ILLINOIS FED. AID PROJECT

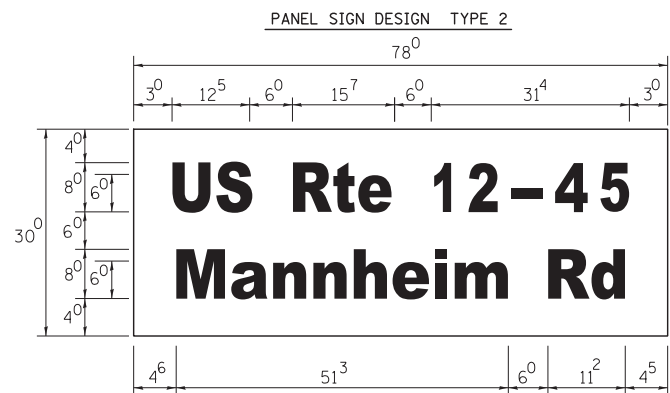
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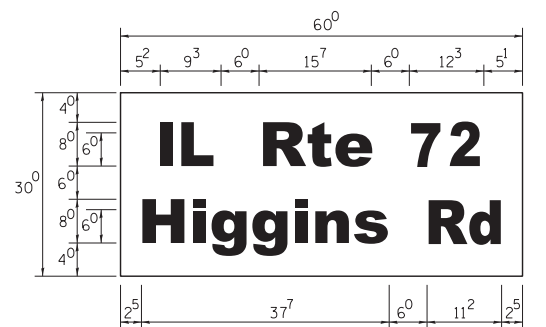
___ Sq. M. each
 8.25 Sq. Ft. each
 2 Required
 Design Series D



___ Sq. M. each
 7.5 Sq. Ft. each
 2 Required
 Design Series D



___ Sq. M. each
 16.25 Sq. Ft. each
 2 Required
 Design Series D



___ Sq. M. each
 12.5 Sq. Ft. each
 2 Required
 Design Series D

GENERAL NOTES

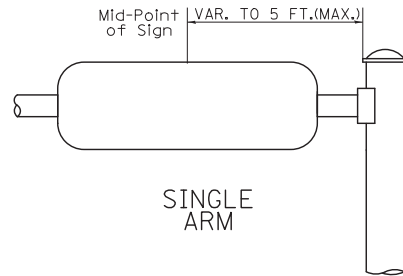
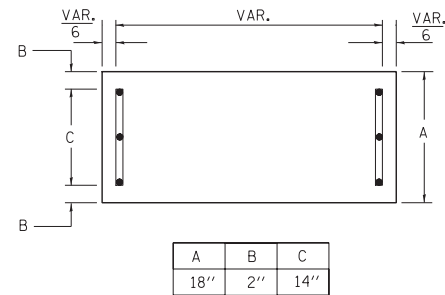
- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 834001, 834006 AND 834011, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 6'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0".
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:
 - * A.K.T. CORPORATION
 - * AMERICAN FABRICATION CO.
 - * SCHAUMBURG, IL
 - * CHICAGO HEIGHTS, IL
 - * TUCKER COMPANY, INC.
 - * WESTERN TRAFFIC CONTROL INC.
 - * WAUWATOSA, WI
 - * CICERO, IL

PARTS LISTING:

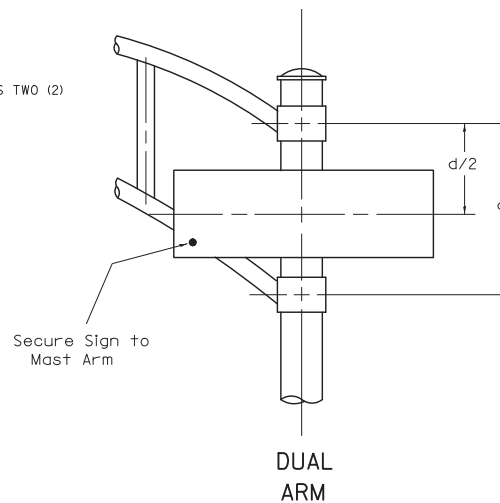
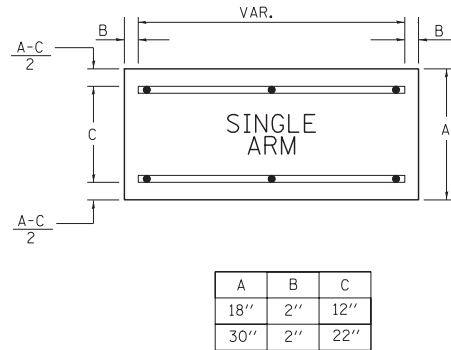
SIGN CHANNEL PART #HPN053 (MED. CHANNEL)
 SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3
 BRACKETS PART #HPN034 (UNIVERSAL)
 CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BACKET OF THE ABOVE PRODUCT.

SUPPORTING CHANNELS



SUPPORTING CHANNELS



DUAL ARM

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM

Shall be used. See Note #5.

Upper Case To Lower Case
 Spacing Chart 8-6 Inch Series "C & D"

EXAMPLE, 2³ DENOTES 3/8

FIRST LETTER	SECOND LETTER															
	a c d e		b h i k l		f w		j		s t		v y		x		z	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ¹	1 ⁴	0 ⁶	1 ⁰	1 ¹	1 ²	1 ²	1 ⁴
B	1 ⁴	1 ⁵	2 ⁰	2 ¹	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁶	1 ⁷
C E G	1 ⁴	1 ⁵	2 ⁰	2 ¹	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵
D O Q R	1 ⁴	1 ⁵	2 ⁰	2 ¹	1 ⁴	1 ⁵	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵
F	0 ⁵	0 ⁶	1 ⁴	1 ⁵	0 ⁶	1 ⁰	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰	0 ⁶	1 ⁰	1 ¹	1 ²
H I M N	2 ⁰	2 ¹	2 ²	2 ⁴	2 ⁰	2 ¹	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ⁶	1 ⁷	2 ⁰	2 ¹	2 ⁰	2 ¹
J U	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁶	1 ⁷	2 ⁰	2 ¹
K L	1 ¹	1 ²	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴
P	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ²	1 ⁴	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
S	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴
T	1 ¹	1 ²	1 ⁶	1 ⁷	0 ⁶	1 ⁰	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴
V	0 ⁶	1 ⁰	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴
Y	0 ⁵	0 ⁶	1 ⁴	1 ⁵	0 ⁶	1 ⁰	0 ⁵	0 ⁶	0 ⁵	0 ⁷	0 ⁵	0 ⁶	0 ⁶	1 ⁰	1 ¹	1 ²
Z	1 ⁶	1 ⁷	2 ²	2 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁶	1 ⁷	2 ⁰	2 ¹

Lower Case To Lower Case
 Spacing Chart 6 Inch Series "C & D"

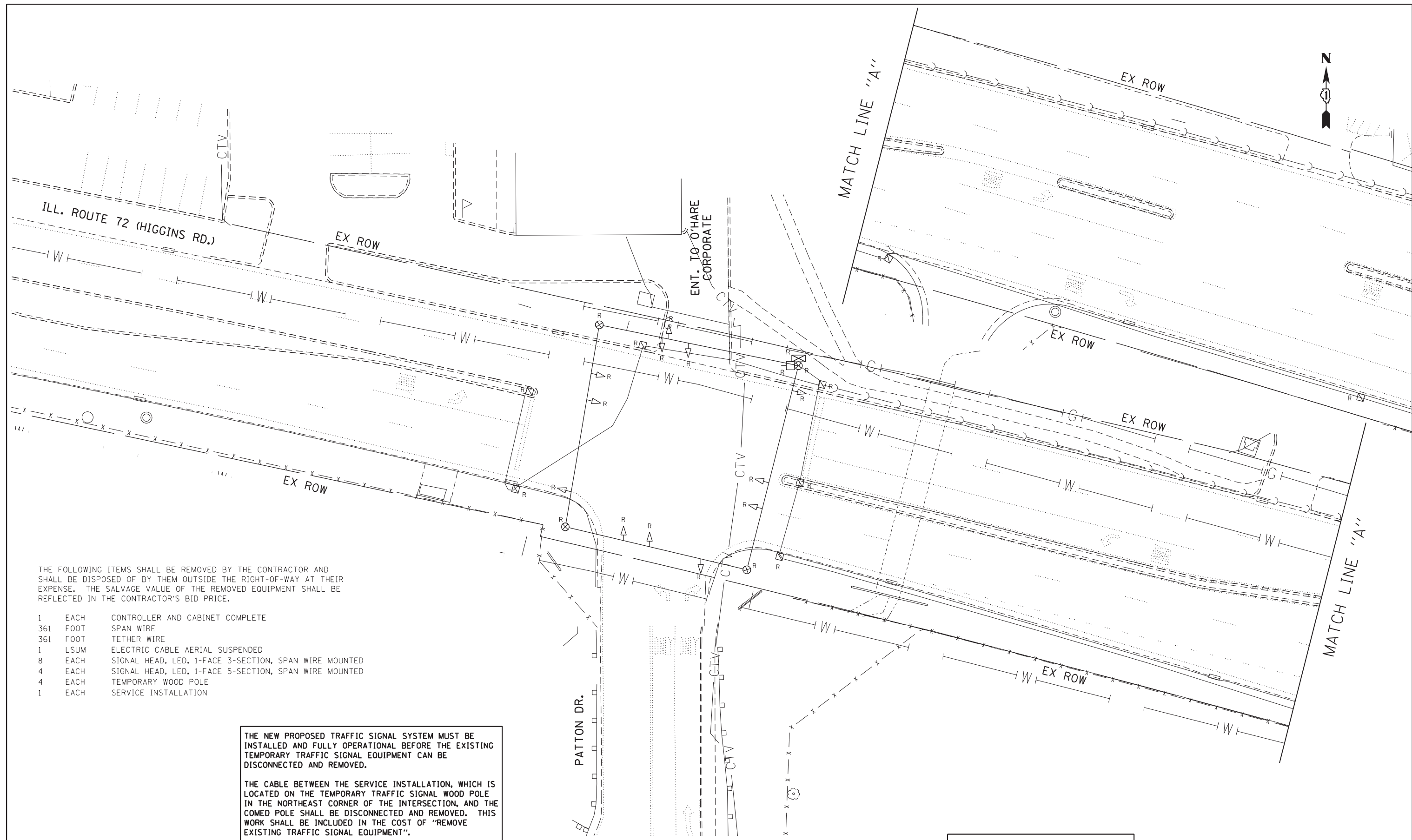
FIRST LETTER	SECOND LETTER															
	a c d e		b h i k l		f w		j		s t		v y		x		z	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
ad h g i j	1 ⁶	1 ⁷	2 ²	2 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ⁶	1 ⁷
l m n q u	1 ⁶	1 ⁷	2 ²	2 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ⁶	1 ⁷
b f k o p s	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
c e	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴
r	0 ⁶	1 ⁰	1 ²	1 ⁴	0 ⁶	1 ⁰	0 ³	0 ³	0 ⁵	0 ⁶	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰
t z	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
v y	1 ¹	1 ²	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²
w	1 ¹	1 ²	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴
x	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴

Number To Number
 Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER																			
	0		1		2		3		4		5		6		7		8		9	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁶	1 ⁷
1	2 ⁰	2 ¹	2 ⁰	2 ¹	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁴	1 ⁵	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁴	1 ⁵	2 ⁰	2 ¹	2 ⁰	2 ¹
2 3 4	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁶	1 ⁷	1 ⁴	1 ⁵
5	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵
6	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵
7	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ²	1 ⁵	0 ⁵	0 ⁶	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ²	1 ⁴
8	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ²	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁴	1 ⁵

LETTERS	UPPER AND LOWER CASE LETTER WIDTHS							
	6 INCH UPPER CASE LETTERS		8 INCH UPPER CASE LETTERS		LETTERS	6 INCH LOWER CASE LETTERS		
	C	D	C	D		C	D	
A	3 ⁶	5 ⁰	5 ⁰	6 ⁵	a	3 ⁵	4 ²	
B	3 ²	4 ⁰	4 ³	5 ³	b	3 ⁵	4 ²	
C	3 ²	4 ⁰	4 ³	5 ³	c	3 ⁵	4 ¹	
D	3 ²	4 ⁰	4 ³	5 ³	d	3 ⁵	4 ²	
E	3 ⁰	3 ⁵	4 ⁰	4 ⁷	e	3 ⁵	4 ²	
F	3 ⁰	3 ⁵	4 ⁰	4 ⁷	f	2 ³	2 ⁶	
G	3 ²	4 ⁰	4 ³	5 ³	g	3 ⁵	4 ²	
H	3 ²	4 ⁰	4 ³	5 ³	h	3 ⁵	4 ²	
I	0 ⁷	0 ⁷	1 ¹	1 ²	i	1 ¹	1 ¹	
J	3 ⁰	3 ⁶	4 ⁰	5 ⁰	j	2 ⁰	2 ²	
K	3 ²	4 ¹	4 ³	5 ⁴	k	3 ⁵	4 ²	
L	3 ⁰	3 ⁵	4 ⁰	4 ⁷	l	1 ¹	1 ¹	
M	3 ⁷	4 ⁵	5 ¹	6 ¹	m	6 ⁰	7 ⁰	
N	3 ²	4 ⁰	4 ³	5 ³	n	3 ⁵	4 ²	
O	3 ⁴	4 ²	4 ⁵	5 ⁵	o	3 ⁶	4 ³	
P	3 ²	4 ⁰	4 ³	5 ³	p	3 ⁵	4 ²	
Q	3 ⁴	4 ²	4 ⁵	5 ⁵	q	3 ⁵	4 ²	
R	3 ²	4 ⁰	4 ³	5 ³	r	2 ⁶	3 ²	
S	3 ²	4 ⁰	4 ³	5 ³	s	3 ⁶	4 ²	
T	3 ⁰	3 ⁵	4 ⁰	4 ⁷	t	2 ⁷	3 ²	
U	3 ²	4 ⁰	4 ³	5 ³	u	3 ⁵	4 ²	
V	3 ⁵	4 ⁴	4 ⁷	6 ⁰	v	4 ²	4 ⁷	
W	4 ⁴	5 ²	6 ⁰	7 ⁰	w	5 ⁵	6 ⁴	
X	3 ⁴	4 ⁰	4 ⁵	5 ³	x	4 ⁴	5 ¹	
Y	3 ⁶	5 ⁰	5 ⁰	6 ⁶	y	4 ⁶	5 ³	
Z	3 ²	4 ⁰	4 ³	5 ³	z	3 ⁶	4 ³	

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	1 ²	1 ⁴	1 ⁵	2 ⁰
2	3 ²	4 ⁰	4 ³	



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACTOR'S BID PRICE.

- 1 EACH CONTROLLER AND CABINET COMPLETE
- 361 FOOT SPAN WIRE
- 361 FOOT TETHER WIRE
- 1 LSUM ELECTRIC CABLE AERIAL SUSPENDED
- 8 EACH SIGNAL HEAD, LED, 1-FACE 3-SECTION, SPAN WIRE MOUNTED
- 4 EACH SIGNAL HEAD, LED, 1-FACE 5-SECTION, SPAN WIRE MOUNTED
- 4 EACH TEMPORARY WOOD POLE
- 1 EACH SERVICE INSTALLATION

THE NEW PROPOSED TRAFFIC SIGNAL SYSTEM MUST BE INSTALLED AND FULLY OPERATIONAL BEFORE THE EXISTING TEMPORARY TRAFFIC SIGNAL EQUIPMENT CAN BE DISCONNECTED AND REMOVED.

THE CABLE BETWEEN THE SERVICE INSTALLATION, WHICH IS LOCATED ON THE TEMPORARY TRAFFIC SIGNAL WOOD POLE IN THE NORTHEAST CORNER OF THE INTERSECTION, AND THE COMED POLE SHALL BE DISCONNECTED AND REMOVED. THIS WORK SHALL BE INCLUDED IN THE COST OF "REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT".

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = \$USER\$	DESIGNED - PKG	REVISED -
#FILE#		DRAWN - MA	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED - PKG	REVISED -
	PLOT DATE = \$DATE\$	DATE - 11/12/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

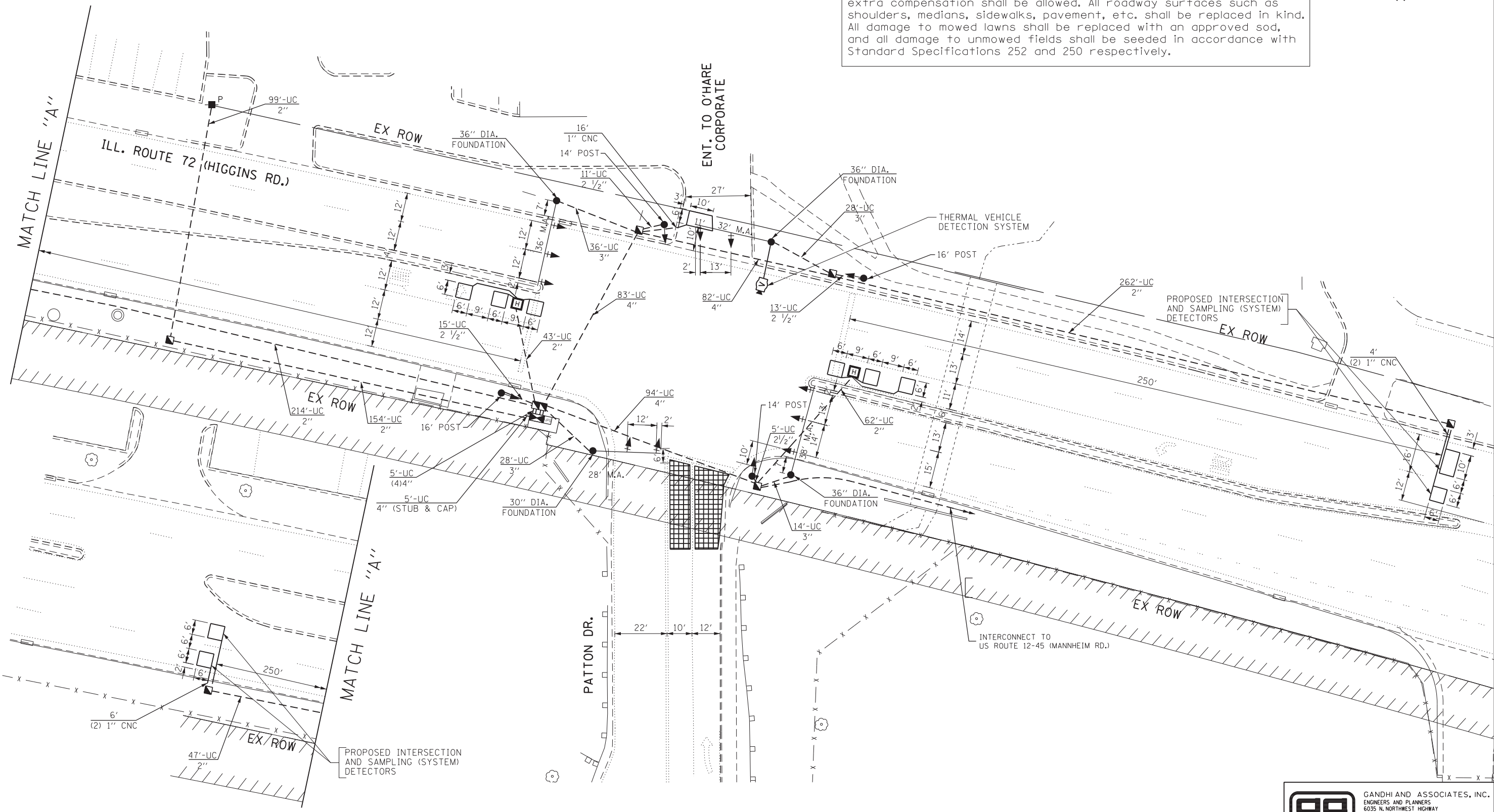
TEMPORARY TRAFFIC SIGNAL INSTALLATION REMOVAL PLAN ILL. ROUTE 72 (HIGGINS RD.) AT PATTON DR.			
SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 262
CONTRACT NO. 60P35				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

ga GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. 17731774-5910

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay item such as foundation, conduit, handhole, trench and backfill, etc., and no extra compensation shall be allowed. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.



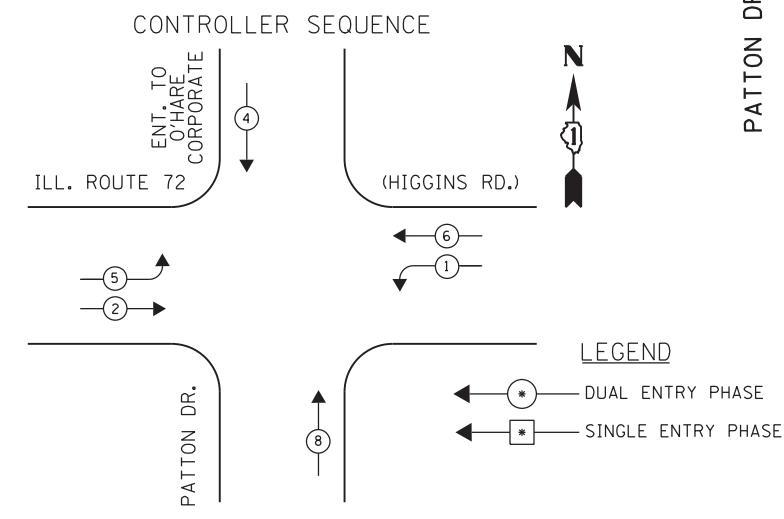
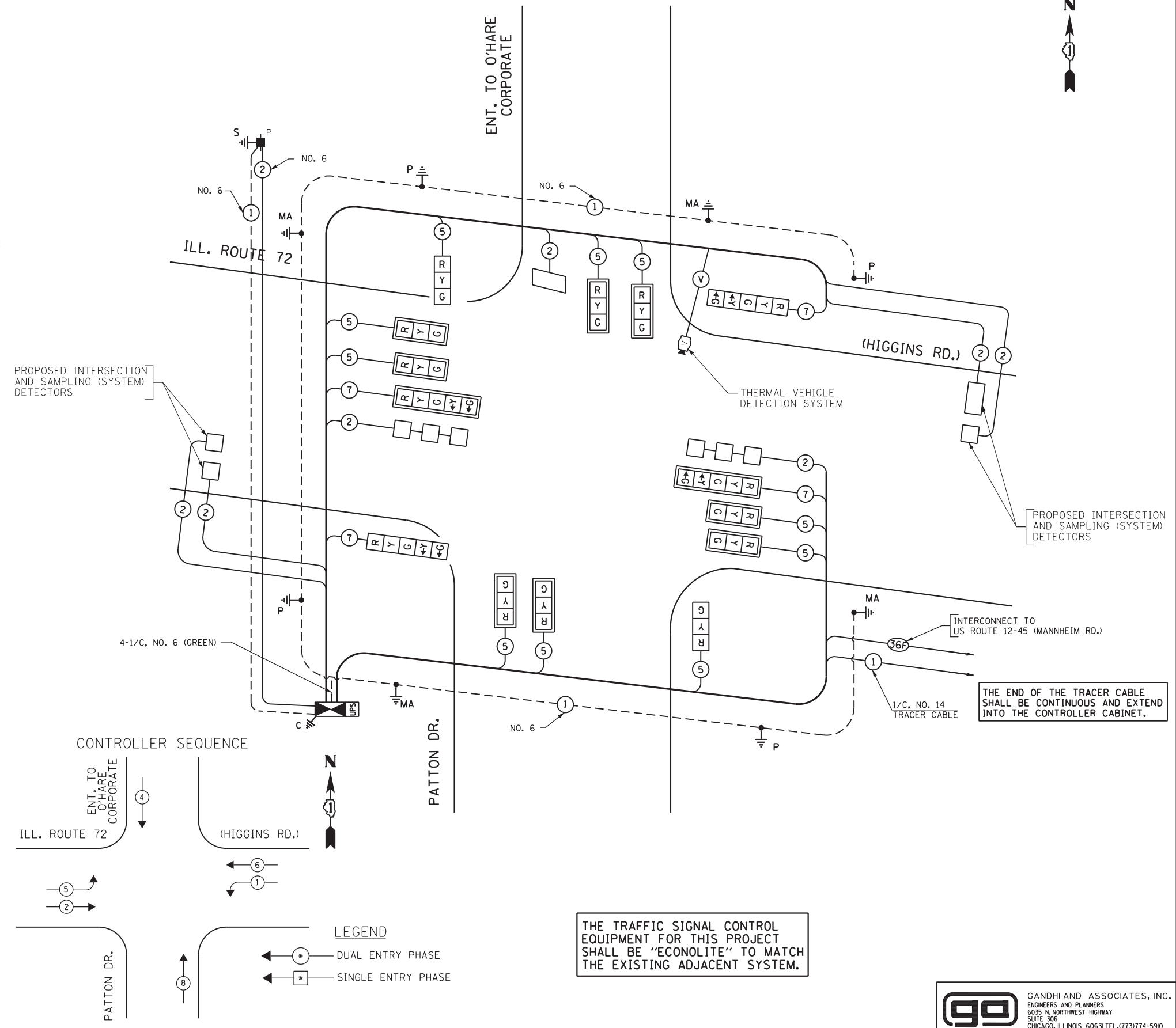
FILE NAME =	USER NAME = \$USER\$	DESIGNED - PKG	REVISED -
#FILE#		DRAWN - MA	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED - PKG	REVISED -
	PLOT DATE = \$DATE\$	DATE - 11/12/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN ILL. ROUTE 72 (HIGGINS RD.) AT PATTON DR.			
SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. TO STA.

	GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910			
	F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60P35	

SCHEDULE OF QUANTITIES		
QUANTITY	UNIT	ITEM
15	SQ FT	SIGN PANEL - TYPE 1
25	SQ FT	SIGN PANEL - TYPE 2
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
834	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
44	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
106	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
284	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
6	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1749	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
693	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1894	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
279	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 4 2C
843	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE 28 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE 32 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE 38 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
10	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
33	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
7	EACH	INDUCTIVE LOOP DETECTOR
380	FOOT	DETECTOR LOOP, TYPE I
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
8	EACH	REMOVE EXISTING HANDHOLE
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	THERMAL VEHICLE DETECTION SYSTEM



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE	%OPERATION		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.05	
THERMAL SYSTEM	1	150		1.00	150
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	518.6
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: STEVE FITZGERALD PHONE: (708) 235-2327 COMPANY: COMED					

INDEX OF SHEETS

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E-25 - E-30	FINAL LIGHTING PLANS
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E-32 - E-33	CONTROLLER SINGLE LINE DIAGRAMS
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	STANDARD IDOT DISTRICT 1 DETAILS

DISTRICT 1 DETAILS

BE-205	LIGHTING CONTROLLER, RADIO CONTROL - DUPLEX TYPE WITH SCADA
BE-220	ELECTRIC SERVICE INSTALLATION - AERIAL, REMOTE DISCONNECT
BE-301	LIGHT POLE FOUNDATION - 40' TO 47 1/2' M.H. 15" BOLT CIRCLE
BE-310	LIGHT POLE FOUNDATION OFFSET - 40' TO 47 1/2' M.H. - 15" BOLT CIRCLE
BE-322	24" DIA. LIGHT POLE FOUNDATION - INTEGRAL WITH DOUBLE FACE BARRIER WALL
BE-410	DAVIT LIGHT POLE - 47'-6" MOUNTING HEIGHT
BE-411	DAVIT LIGHT POLE - 40'-0" MOUNTING HEIGHT
BE-701	LUMINAIRE SAFETY CABLE ASSEMBLY
BE-702	MISC. ELECTRICAL DETAILS - SHEET A
BE-800	TEMPORARY LIGHT POLE DETAILS
BE-801	TEMPORARY AERIAL CABLE INSTALLATION

ABBREVIATIONS

AMP	AMPER
AWG	AMERICAN WIRE GAUGE
BC	BOLT CIRCLE
C	CONDUIT
CDA	CHICAGO DEPARTMENT OF AVIATION
DIA	DIAMETER
GRD	GROUND
GS	GALVANIZED STEEL
HDP	HIGH DENSITY POLYETHYLENE
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
MA	MAST ARM
MH	MOUNTING HEIGHT
N	NEUTRAL
NIC	NOT IN CONTRACT
PH	PHASE
PVC	POLYVINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL
USE	UNDERGROUND SERVICE ENTERANCE
W	WATTS
XLP	CROSS-LINKED POLYETHYLENE

FINAL LIGHTING GENERAL NOTES

- PRIOR TO INSTALLATION ON THE NEW UNIT DUCT, CONDUITS, JUNCTION BOXES, LIGHT STANDARD FOUNDATION AND APPURTENANCES, THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION OF EXISTING CONDUITS, CABLE AND UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123 OR 811) TO AID IN THIS TASK.
- THE CONTRACTOR MUST VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT PLANS WHICH WOULD EFFECT HIS WORK UNDER THIS CONTRACT FOR THE OPERATION OF THE EXISTING ROADWAY LIGHTING SYSTEM.
- NO MATERIAL OR EQUIPMENT SHALL BE DELIVERED TO THE JOB SITE WITHOUT PRIOR INSPECTION AND APPROVAL BY THE ENGINEER. ANY MATERIAL AND EQUIPMENT NOT APPROVED BY THE ENGINEER MUST BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE.
- ALL NEW UNIT DUCT, CONDUIT, JUNCTION BOXES AND APPURTENANCES ARE SHOWN DIAGRAMMATICALLY. THE ACTUAL LOCATION IN THE FIELD MUST MEET THE APPROVAL OF THE ENGINEER.
- CONDUIT AND UNIT DUCT MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH UNDER DRAINS.
- ALL ELECTRICAL SYSTEMS, EQUIPMENT AND APPURTENANCES SHALL BE PROPERLY GROUNDED IN STRICT CONFORMANCE WITH NATIONAL ELECTRICAL CODE EVEN THOUGH EVERY DETAIL OF REQUIREMENTS IS NOT SPECIFIED OR SHOWN.
- GROUNDED OF POLE INCLUDING GROUND ROD, CONDUCTOR, LUGS INCLUDING EXOTHERMIC WELD TO GROUND ROD SHALL NOT BE PAID SEPARATELY.
- ALL UNDERGROUND WIRING SHALL BE 30 INCHES MINIMUM BELOW GRADE PER IDOT SECTION 810.
- THE NEW ELECTRICAL MATERIALS MUST MEET REQUIREMENTS OF STANDARDS BY THE FOLLOWING ORGANIZATIONS:
 - NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION. (NEMA)
 - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS. (IEEE)
 - ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. (IES)
 - AMERICAN ASSOCIATION OF TRANSPORTATION OFFICIALS. (AATO)
 - U.S. DEPARTMENT OF TRANSPORTATION. (U.S.D.O.T)
 - UNDERWRITERS LABORATORIES. (UL)
 - AMERICAN STANDARD INSTITUTE. (ASI)
 - INSULATED POWER AND CABLE ENGINEERS ASSOCIATION. (IPCEA)
 - NATIONAL ELECTRICAL SAFETY CODE (NESC)
 - NATIONAL ELECTRICAL CODE 2011
 - AMERICAN NATIONAL STANDARD PRACTICE FOR ROADWAY LIGHTING (ANSI/IESNA RP-8)
- ALL LIGHT POLES EXCEPT POLES MOUNTED ON CONCRETE BARRIER WALL/BEHIND GUARD RAIL, SHALL HAVE FRANGIBLE TYPE BREAKAWAY TRANSFORMER BASE FOR 11 1/2" OR 15" BOLT CIRCLE. IT SHALL BE AASHTO APPROVED BREAKAWAY.
- ALL SPLICING MUST BE IN POLE BASES OR JUNCTION BOXES ABOVE GRADE WITH WATERPROOF SEALANT AND HEAT SHRINKABLE PLASTIC CAPS.
- UNLESS NOTED OTHERWISE ALL SHOULDER MOUNTED POLES SHALL HAVE MINIMUM SETBACK REQUIREMENT AS FOLLOWS:
 - 1- FACE OF THE CURB TO CENTERLINE OF THE POLE AS 3 FT.
 - 2- WHERE CURB IS NOT THERE, THE MINIMUM SETBACK SHALL BE 13 FT FROM THE EDGE OF TRAVELLED PAVEMENT. ALL POLES MUST BE ALIGNED IN STRAIGHT LINE AS APPROVED BY THE ENGINEER.
- FOR OFFSET FOUNDATION SEE DISTRICT 1 DETAIL BE-310.

TEMPORARY LIGHTING GENERAL NOTES

- THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY COMPANY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED.
- THE ELECTRIC SERVICE SHALL BE 240/480V. DROP CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE INCLUDED AND APPROPRIATELY RATED FOR THE SERVICE VOLTAGE APPLIED.
- THE TEMPORARY LIGHT POLE SETBACK FROM THE FURTHEST EDGE OF TRAVEL PAVEMENT (PER MOT PLANS) SHALL BE 18 FT UNLESS OTHERWISE NOTED BY OFFSET FROM EXISTING EDGE OF PAVEMENT FOR THAT STAGE. TEMPORARY LIGHT POLES INSTALLED BEHIND GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 2 FEET SETBACK FROM THE GUARDRAIL OR WALL OR AS OTHERWISE DIRECTED BY THE ENGINEER. ALL TEMPORARY LIGHTING SHALL BE WOODEN.
- EACH LIGHTING UNIT SHALL BE CONTROLLED BY THE INDICATED LIGHTING CONTROLLER. NO LIGHT SHALL BE INDIVIDUALLY CONTROLLED BY PHOTOCCELL.
- THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH FACTORY APPLIED WATERPROOF SEALANT OR AN APPROVED UL LISTED AERIAL TAP DEVICE.
- IN ACCORDANCE WITH NEC 225.18 AERIAL CONDUCTOR TO MAINTAIN 18' CLEARANCE ABOVE ROAD SURFACE AT ALL TIMES.

TEMPORARY LIGHTING GENERAL NOTES (CONTINUED)

- WHENEVER POSSIBLE THE CONTRACTOR SHALL INSTALL TEMPORARY LIGHTING UNITS IN THE PRESTAGE. TEMPORARY LIGHTING MUST BE FULLY OPERATIONAL BEFORE THE EXISTING LIGHTING ON THE WEST SIDE OF MANNHEIM ROAD MAY BE REMOVED. (EXISTING LIGHTING MUST BE REMOVED BEFORE THE OUTER SHOULDERS MAY BE USED AS A DRIVING LANE.)
- EVERY THIRD TEMPORARY LIGHTING POLE SHALL BE FURNISHED WITH A GROUND ROD CONNECTION. THIS GROUND ROD IS NOT SHOWN ON THE PLAN. 5/8" X 10' COPPER CLAD STEEL GROUND ROD, #2 BARE TINNED COPPER DOWN CONDUCTOR, CABLE GUARD TO 10' ABOVE GRADE ARE INCIDENTAL TO TEMPORARY LIGHTING.
- CONTRACTOR MAY ADJUST TEMPORARY POLE LOCATIONS UP TO 10' IN ANY DIRECTION EXCEPT CLOSER TO THE ROAD, IN ORDER TO ADJUST FOR FIELD CONDITIONS.
- BETWEEN STATION 162+65 AND 185+45 THREE CIRCUITS MUST BE STRUNG ON TEMP POLES. CONTRACTOR SHALL ASSUME THAT MULTIPLE GUY LINES WILL BE REQUIRED FOR THESE POLES. CONTRACTOR MUST PROVIDE CALCULATIONS SHOWING POLES WILL BE ADEQUATELY SUPPORTED PER RUS BULLETIN 1724E-153.

LIGHTING REMOVAL GENERAL NOTES

- PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL REVIEW THE CONTRACT DRAWINGS AND ASCERTAIN EXISTING SITE CONDITIONS TO VERIFY THE EXTENT OF DEMOLITION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING ALL RELOCATIONS AND REMOVALS REQUIRED IN THIS CONTRACT. CONTRACTOR SHALL VERIFY IN THE FIELD THE EXISTING CONDITIONS AND COORDINATE AS REQUIRED.
- THE CONTRACTOR SHALL PROVIDE ALL CONDUITS AND WIRES OF THE SAME TYPE AND SIZE REQUIRED TO MAINTAIN THE CONTINUITY OF THE CIRCUIT TO EXISTING LIGHT POLES TO REMAIN WHICH MAY BE AFFECTED BY THIS DEMOLITION. SHUTDOWN OF EXISTING SERVICES SHALL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE IDOT, AND THEN ONLY FOR THE DATE AND DURATION AGREED UPON. NEVER DURING NIGHT TIME.
- BRANCH CIRCUIT WIRING FOR EXISTING EQUIPMENT TO BE REMOVED SHALL BE DISCONNECTED AT SOURCE AND REMOVED. REMOVE EXISTING WIRING.
- COMMENCEMENT OF WORK SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF THE EXISTING ROADWAY FOR THIS WORK, AND ACCESS TO WORK SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. LATER CLAIMS SHALL NOT BE MADE FOR ADDITIONAL LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING, REINSTALLING, REPAIRING, OR REPLACING EQUIPMENT.
- ALL EXISTING EQUIPMENT THAT ARE TO BE REMOVED AND SALVAGED SHALL BE RETURNED TO STATE STOCK.
- LOCATIONS SELECTED FOR COLLECTION OF DEBRIS AND/OR STORAGE OF EQUIPMENT SHALL BE SUBJECT TO THE IDOT PROJECT MANAGER'S APPROVAL.
- WHERE THE CONTINUITY OF CIRCUITS OR CONDUITS SERVING ANY EXISTING LIGHTING/EQUIPMENT TO REMAIN IN OPERATION IS INTERFERED WITH, RE-ROUTE AND RECONNECT SUCH CIRCUITS OR CONDUITS. THE CONTINUITY OF THE CIRCUIT OR CONDUITS WILL BE INCIDENTAL TO THE ROADWAY PROJECT.
- THE REMOVAL OF THE EXISTING CABLE DUCT SHALL BE INCIDENTAL TO ROADWAY CONSTRUCTION.
- TEMPORARY LIGHTS SHALL BE REMOVED AFTER ALL PROPOSED LIGHT POLES HAVE BEEN INSTALLED AND FULLY FUNCTIONAL OR AS DIRECT BY ENGINEER. REMOVAL OF TEMPORARY LIGHTING UNIT REQUIRED ON THIS CONTRACT SHALL BE AT NO ADDITIONAL COST TO THIS CONTRACT. REMOVAL AND RELOCATION WILL INCLUDE ALL ITEMS SUCH AS LUMINAIRE'S, MAST ARM, AERIAL CABLE, CABLE DUCT AND MOUNTING HARDWARE.

E-01

HNTB	USER NAME = mko51r	DESIGNED KA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL SHEET INDEX, GENERAL NOTES, AND ABBREVIATIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN MMK	REVISED -	330					0105-WRS	COOK	537	265	
	PLOT SCALE = 50:1	CHECKED MCD	REVISED -		CONTRACT NO. 60P35							
	PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -		SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				

LEGENDS

	PROPOSED LIGHTING UNIT 47.5 FT MH ALUMINUM POLE, 15FT DAVIT ARM, LUMINAIRE M-C-III 310W HPS, AND LUMINAIRE SAFETY CABLE
	PROPOSED LIGHTING UNIT 47.5 FT MH ALUMINUM POLE, (2) 15FT 90 DEG. DAVIT ARMS, LUMINAIRE M-C-III 310W HPS, AND LUMINAIRE SAFETY CABLE
	PROPOSED LIGHTING UNIT 47.5 FT MH ALUMINUM POLE, (2) 6FT DAVIT ARM, MOUNTED ON CONCRETE BARRIER WALL, LUMINAIRE M-C-III 310W HPS
	PROPOSED LIGHTING UNIT 40 FT MH ALUMINUM POLE, (2) 6FT DAVIT ARM, MOUNTED ON CONCRETE BARRIER WALL, LUMINAIRE M-C-III 310W HPS
	PROPOSED LIGHTING UNIT 40 FT MH ALUMINUM POLE, 6FT DAVIT ARM, LUMINAIRE M-C-III 400W HPS (CITY LIGHT POLE)
	LIGHTING UNIT COMBINATION ON TRAFFIC SIGNAL POLE 15 FT MAST ARM AND M-C-III 310W HPS
	EXISTING LIGHTING UNIT
	EXISTING LIGHTING UNIT TO BE REMOVED
	PROPOSED TEMPORARY LIGHTING UNIT 310W, 240V MCIII HPS, 15 FT MA, 40 FT MH ON WOOD POLE, CLASS 4
	PROPOSED TEMPORARY LIGHTING UNIT 400W, 240V MCIII HPS, 20 FT MA, 40 FT MH ON WOOD POLE, CLASS 4
	PROPOSED TEMPORARY LIGHTING UNIT 400W, 240V MCIII HPS, 20 FT MA, 47.5 FT MH ON WOOD POLE, CLASS 4
	PROPOSED TEMPORARY LIGHTING UNIT 400W, 240V MCIII HPS, 20 FT MA, ON TEMPORARY TRAFFIC SIGNAL POLE OR REPLACING 8 FT MA AND 250W LUMINAIRE ON EXISTING LIGHT POLE
	PROPOSED TEMPORARY LIGHTING UNIT 400W, 240V MCIII HPS, 20 FT MA, ON REUSED METAL POLE

POLE /UNIT IDENTIFICATION

TL-AaXX
 A, C - DENOTES IDOT CONTROLLER
 SLPB - DENOTES CITY OF CHICAGO CONTROLLER
 a - DENOTES CIRCUIT NUMBER
 X - DENOTES POLE NUMBER ON THE CIRCUIT
 TL - PREFIX DENOTES TEMPORARY LIGHT

	ELECTRICAL JUNCTION BOX
	ELECTRICAL PULL BOX
	ELECTRICAL HANDHOLE
	GROUND FIELD FOR CONTROLLERS GROUND RODS 5/8" x 10'-0" # 2/0 AWG BARE COPPER WIRE
	GROUND ROD 5/8" DIA. X 10'
	3" RIGID GALVANIZED STEEL CONDUIT SLEEVE BELOW PAVEMENT L-LENGTH U-UNDERGROUND R-RIGID S-STEEL C-CONDUIT
	UNIT DUCT, 1 1/2" DIA POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE), (UNLESS NOTED OTHERWISE)
	4" DIA PVC CONDUIT EMBEDDED IN BARRIER WALL. INCLUDING UNIT DUCT. (3)4"C CONDUIT SHALL BE EMBEDDED IN BARRIER WALL. (1)4"C FOR LIGHTING (1)4"C FOR ITS CABLE (REFER TO ITS PLANS) (1)4"C SPARE (REFER TO ITS PLANS)
	3-1/C#2, AERIAL CABLE WITH MESSENGER WIRE (TYPE ALUMINIUM)
	PROPOSED LIGHTING CONTROLLER RADIO CONTROL DUPLEX CONSOLETYPE WITH SCADA 240/480V, 1PH, 3 WIRE
	EXISTING LIGHTING CONTROLLER RADIO CONTROL DUPLEX CONSOLE TYPE WITH SCADA 240/480V, 1PH, 3 WIRE

TEMPORARY LIGHTING PHASING

UNLESS NOTED OTHERWISE:
 * TEMPORARY LIGHTING POLES INSTALLED IN PRESTAGE, PUT RIGHT INTO SERVICE, AND THEN REMOVED IN STAGE 3 AFTER PROPOSED LIGHTING IS IN-SERVICE AND ACCEPTED BY ENGINEER.
 * WHERE TEMPORARY LIGHTING POLES ARE BEING INSTALLED, EXISTING LIGHT POLES MAY BE REMOVED IN PRESTAGE OR AT LEAST BY STAGE INDICATED.
 * STATION NUMBERS ARE APPROXIMATE, SEE PLANS FOR ACTUAL LOCATIONS.

I-190 TO STA 123+00
 WEST SIDE: EXISTING POLES REMOVED BY STAGE 2A.
 MEDIAN: PROPOSED POLES INSTALLED IN STAGE 3.
 EAST SIDE: EXISTING POLES REMOVED BY STAGE 1A.

STA 123+00 TO STA 133+00
 WEST SIDE: EXISTING POLES REMOVED IN PRESTAGE.
 MEDIAN: PROPOSED POLES INSTALLED IN STAGE 3.
 EAST SIDE: EXISTING POLES REMOVED BY END OF STAGE 1.

STA 133+00 TO STA 166+00
 WEST SIDE: EXISTING POLES REMOVED IN PRESTAGE
 MEDIAN: PROPOSED POLES INSTALLED IN STAGE 3.
 EAST SIDE: EXISTING POLES REMOVED BY END OF STAGE 1.

STA 166+00 TO ZEMKE INTERSECTION
 WEST SIDE: EXISTING POLES REMOVED IN PRESTAGE. PROPOSED LIGHTS IN SERVICE BY START OF STAGE 3
 MEDIAN: N/A
 EAST SIDE: NO TEMPORARY LIGHTS, PROPOSED LIGHTS IN SERVICE BY START OF STAGE 1C.

ZEMKE INTERSECTION TO HIGGINS INTERSECTION
 WEST SIDE: EXISTING POLES REMOVED IN PRESTAGE. PROPOSED LIGHTS IN SERVICE BY START OF STAGE 3
 MEDIAN: N/A
 EAST SIDE: NO TEMPORARY LIGHTS, PROPOSED LIGHTS IN SERVICE BY START OF STAGE 1B.

ZEMKE BLVD AND BESSIE COLEMAN DRIVE
 CDA POLES REPLACED IN SAME STAGE AS EXISTING POLES REMOVED-PRESTAGE

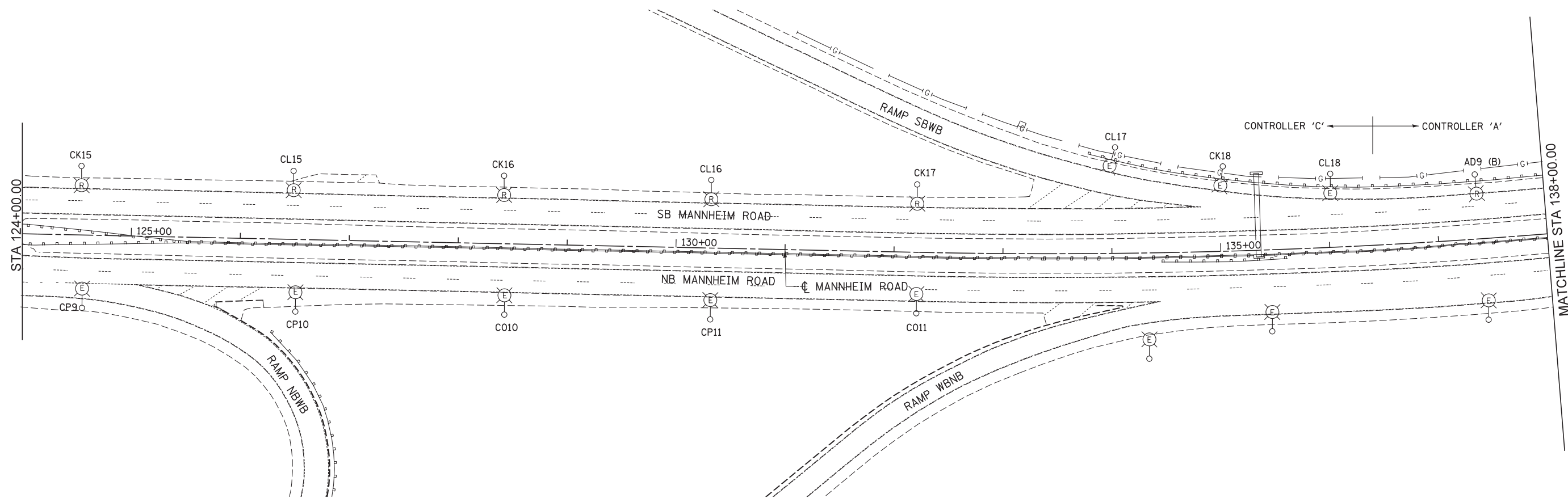
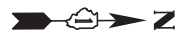


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PLOT SCALE = 50:1	CHECKED MCD	REVISED -
PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

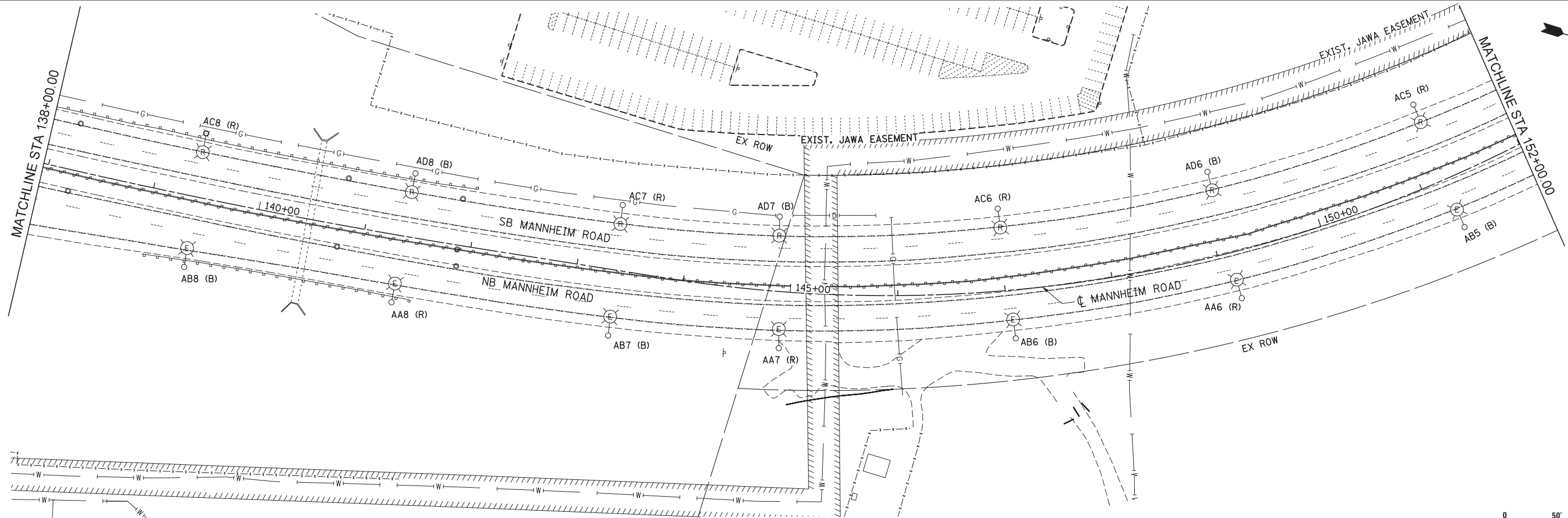
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SCALE: NONE	SHEET NO. 2 OF 2 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	266
CONTRACT NO. 60P35			ILLINOIS FED. AID PROJECT	



MATCHLINE STA 138+00.00

STA 124+00.00



E-03



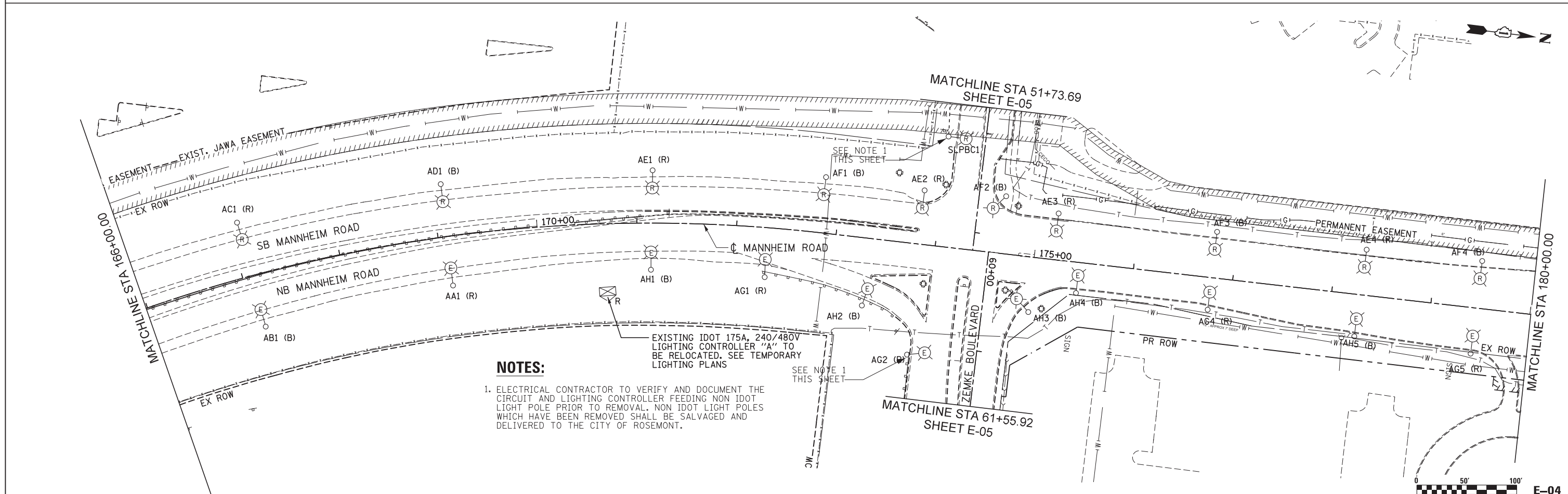
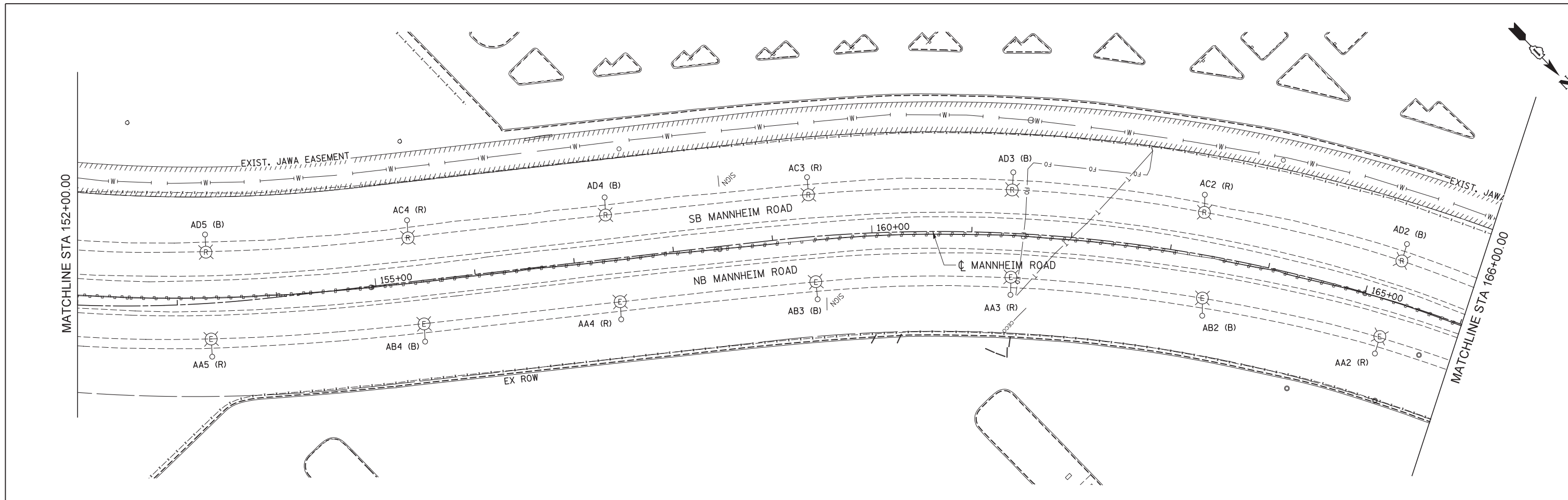
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	DATE 10/19/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING REMOVAL PLAN
PRE STAGE
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 124+00.00 TO STA. 152+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	267
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



NOTES:
 1. ELECTRICAL CONTRACTOR TO VERIFY AND DOCUMENT THE CIRCUIT AND LIGHTING CONTROLLER FEEDING NON IDOT LIGHT POLE PRIOR TO REMOVAL. NON IDOT LIGHT POLES WHICH HAVE BEEN REMOVED SHALL BE SALVAGED AND DELIVERED TO THE CITY OF ROSEMONT.

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

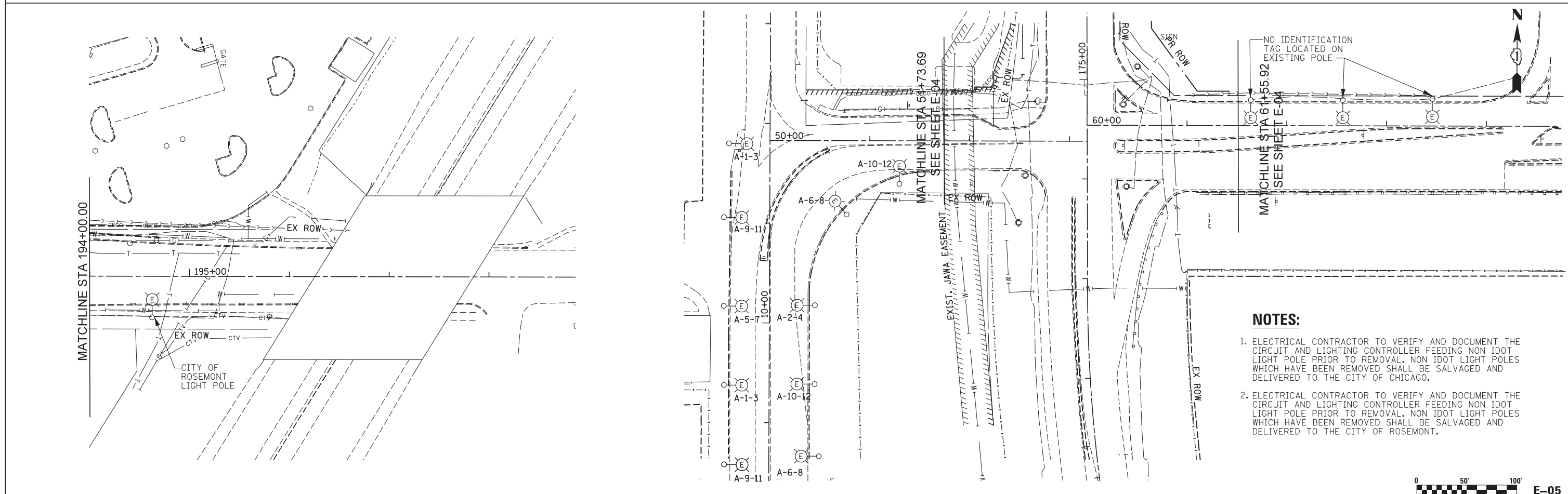
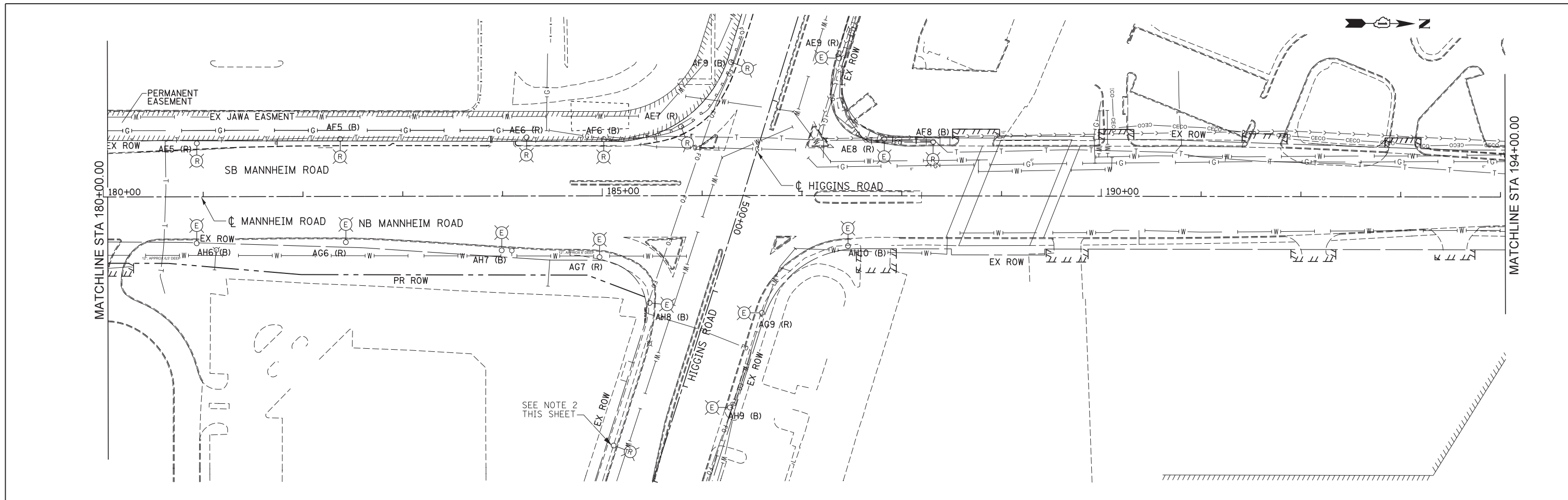
**LIGHTING REMOVAL PLAN
 PRE STAGE
 MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 152+00.00 TO STA. 180+00.00

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330	0105-WRS	COOK	537	268
CONTRACT NO. 60P35				

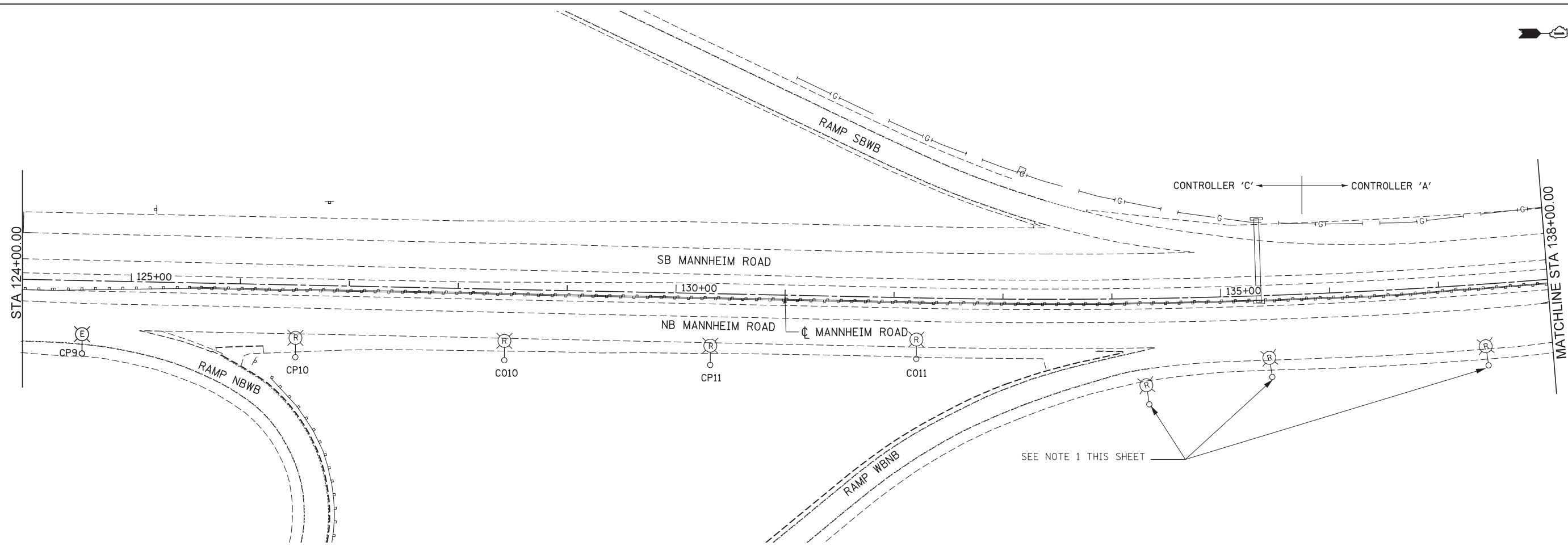
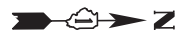
Globetrotters[®]
 Engineering Corporation
 ENGINEERS ARCHITECTS
 300 South Wacker Drive
 Chicago, IL 60606

USER NAME = micosir	DESIGNED CD	REVISED -
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PLOT DATE = 23-OCT-2012	CHECKED CD	REVISED -
	DATE 10/19/12	REVISED -

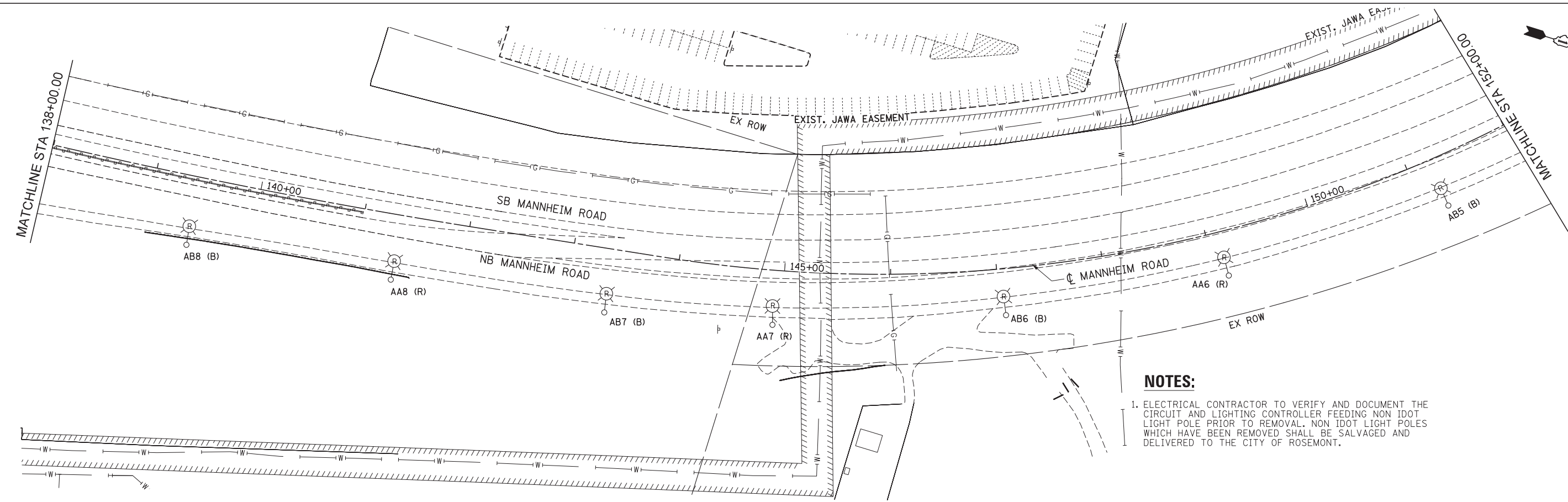


- NOTES:**
1. ELECTRICAL CONTRACTOR TO VERIFY AND DOCUMENT THE CIRCUIT AND LIGHTING CONTROLLER FEEDING NON IDOT LIGHT POLE PRIOR TO REMOVAL. NON IDOT LIGHT POLES WHICH HAVE BEEN REMOVED SHALL BE SALVAGED AND DELIVERED TO THE CITY OF CHICAGO.
 2. ELECTRICAL CONTRACTOR TO VERIFY AND DOCUMENT THE CIRCUIT AND LIGHTING CONTROLLER FEEDING NON IDOT LIGHT POLE PRIOR TO REMOVAL. NON IDOT LIGHT POLES WHICH HAVE BEEN REMOVED SHALL BE SALVAGED AND DELIVERED TO THE CITY OF ROSEMONT.

<p>Globetrotters[®] Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, IL 60606</p>	USER NAME = mkosir	DESIGNED CD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN PRE STAGE MANNHEIM ROAD			F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 269	
	PLOT SCALE = 50:1	CHECKED CD	REVISED -		SCALE: 1" = 50'			SHEET NO. OF SHEETS		STA. 180+00.00 TO STA. 196+15.00		CONTRACT NO. 60P35	
	PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -		ILLINOIS FED. AID PROJECT								
	FILE NAME = IP_PWP\dms47849\DI60P35-sh-t-E-Rmv1 StagingP 4.dgn												



SEE NOTE 1 THIS SHEET



NOTES:

1. ELECTRICAL CONTRACTOR TO VERIFY AND DOCUMENT THE CIRCUIT AND LIGHTING CONTROLLER FEEDING NON IDOT LIGHT POLE PRIOR TO REMOVAL. NON IDOT LIGHT POLES WHICH HAVE BEEN REMOVED SHALL BE SALVAGED AND DELIVERED TO THE CITY OF ROSEMONT.



E-06



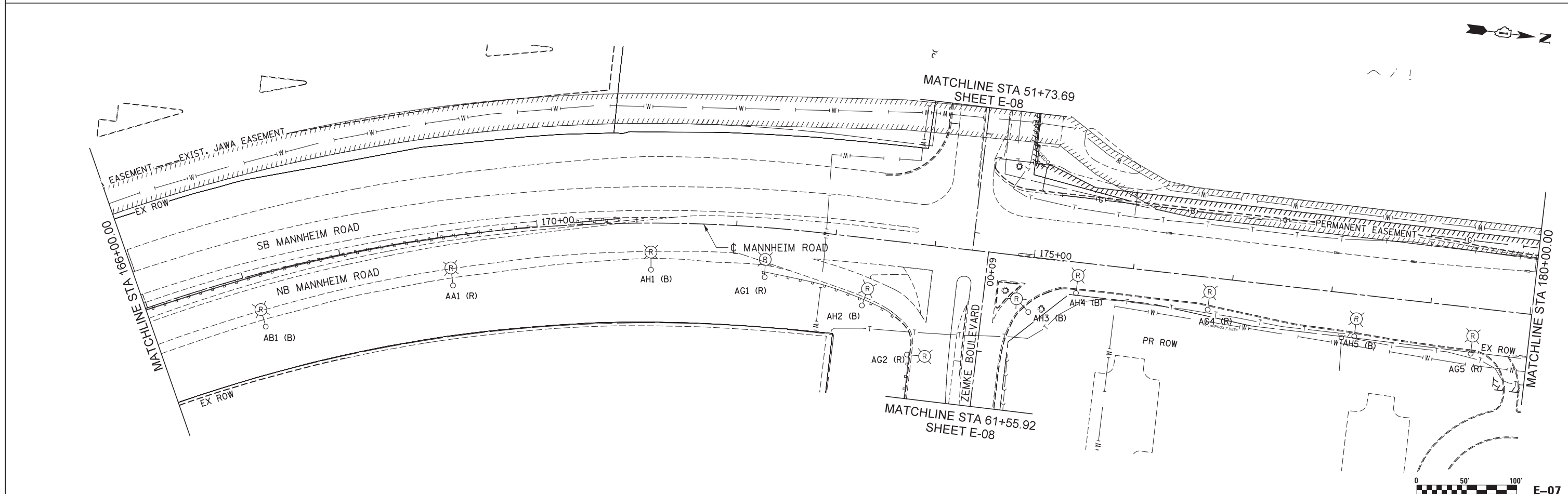
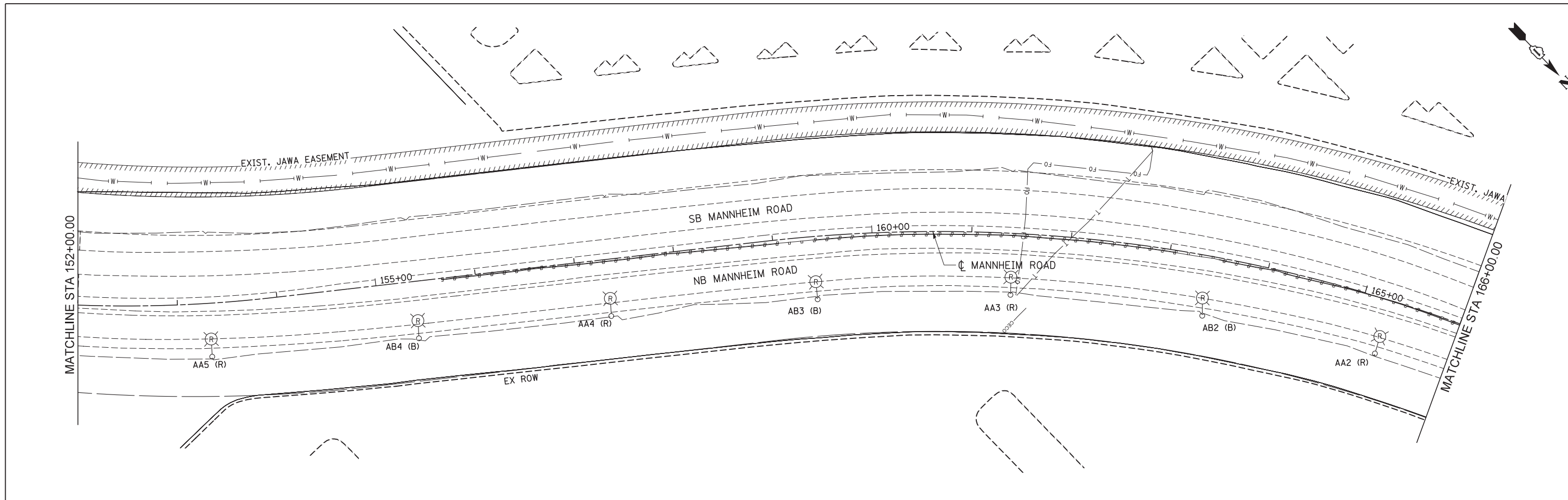
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PLOT DATE = 23-OCT-2012	CHECKED CD	REVISED -
	DATE 10/19/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

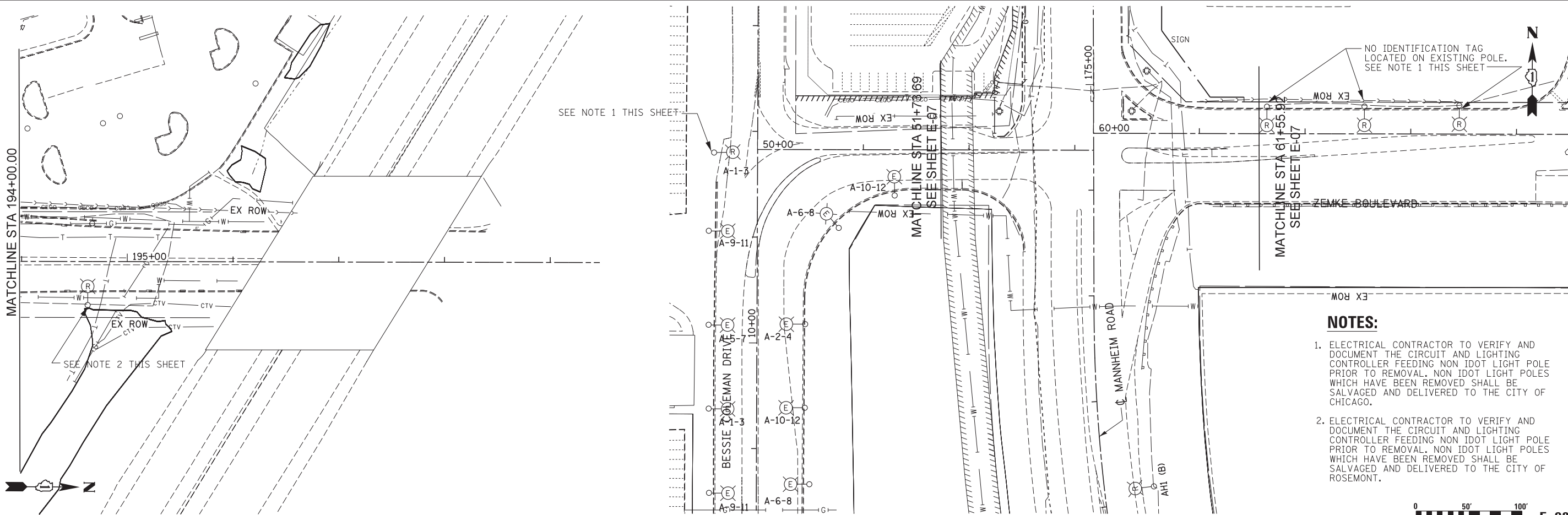
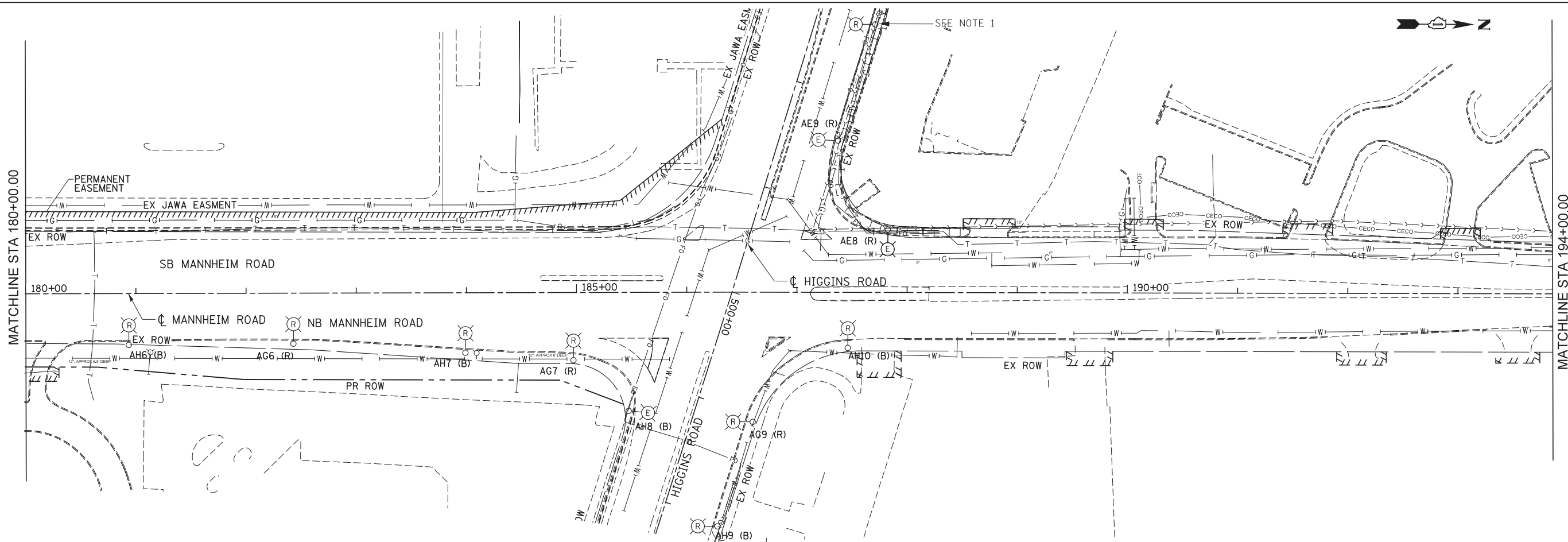
**LIGHTING REMOVAL PLAN
STAGE 1
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 124+00.00 TO STA. 152+00.00

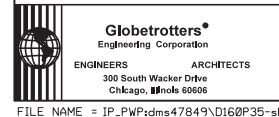
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	270
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



<p>GloboTrotters[®] Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, IL 60606</p>	USER NAME = micosir	DESIGNED <i>CD</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN STAGE 1 MANNHEIM ROAD			F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 271	
	PLOT SCALE = 50:1	CHECKED <i>CD</i>	REVISED -		SCALE: 1" = 50'	SHEET NO. OF SHEETS	STA. 152+00.00 TO STA. 180+00.00	CONTRACT NO. 60P35					
	PLOT DATE = 23-OCT-2012	DATE <i>10/19/12</i>	REVISED -		ILLINOIS FED. AID PROJECT								
	FILE NAME = IP_PWP\dms47849\DI60P35-sh1-E-Rmv1 Staging1 3.dgn												



- NOTES:**
1. ELECTRICAL CONTRACTOR TO VERIFY AND DOCUMENT THE CIRCUIT AND LIGHTING CONTROLLER FEEDING NON IDOT LIGHT POLE PRIOR TO REMOVAL. NON IDOT LIGHT POLES WHICH HAVE BEEN REMOVED SHALL BE SALVAGED AND DELIVERED TO THE CITY OF CHICAGO.
 2. ELECTRICAL CONTRACTOR TO VERIFY AND DOCUMENT THE CIRCUIT AND LIGHTING CONTROLLER FEEDING NON IDOT LIGHT POLE PRIOR TO REMOVAL. NON IDOT LIGHT POLES WHICH HAVE BEEN REMOVED SHALL BE SALVAGED AND DELIVERED TO THE CITY OF ROSEMONT.



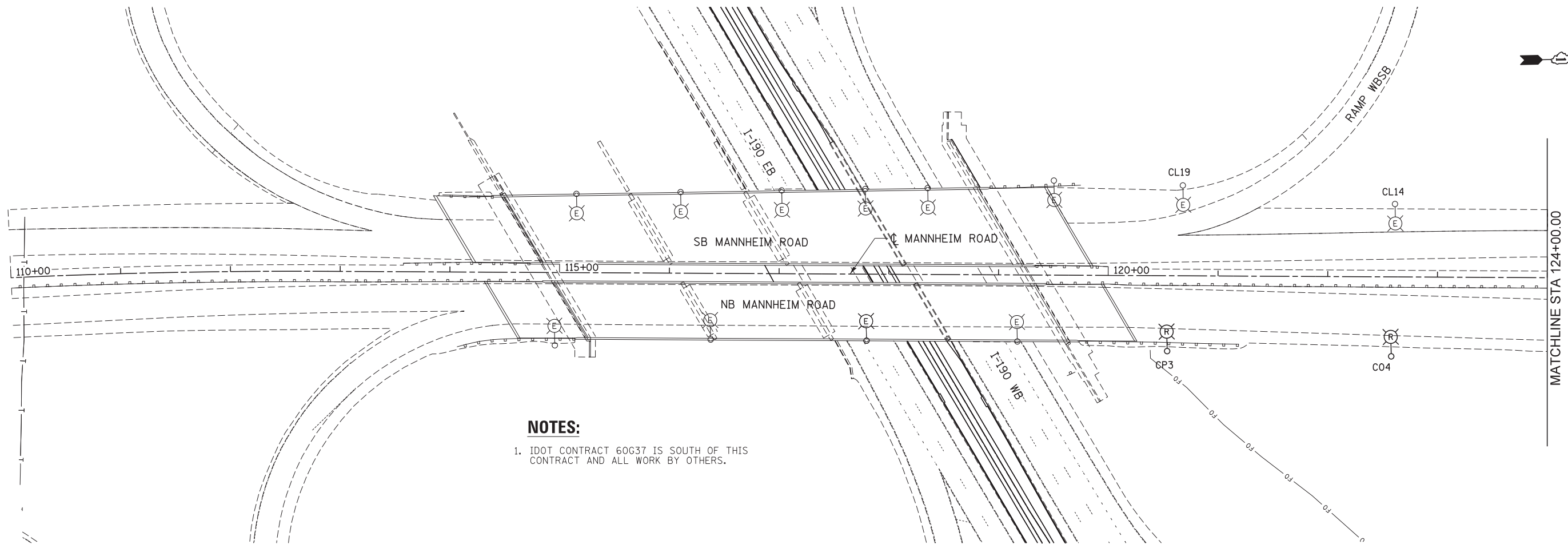
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PLOT DATE = 23-OCT-2012	CHECKED CD	REVISED -
	DATE 10/19/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING REMOVAL PLAN
STAGE 1
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 180+00.00 TO STA. 196+15.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	272
				CONTRACT NO. 60P35
ILLINOIS FED. AID PROJECT				



NOTES:
 1. IDOT CONTRACT 60G37 IS SOUTH OF THIS CONTRACT AND ALL WORK BY OTHERS.



E-09



USER NAME = mko51r	DESIGNED CD	REVISED -
	DRAWN RL	REVISED -
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PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -

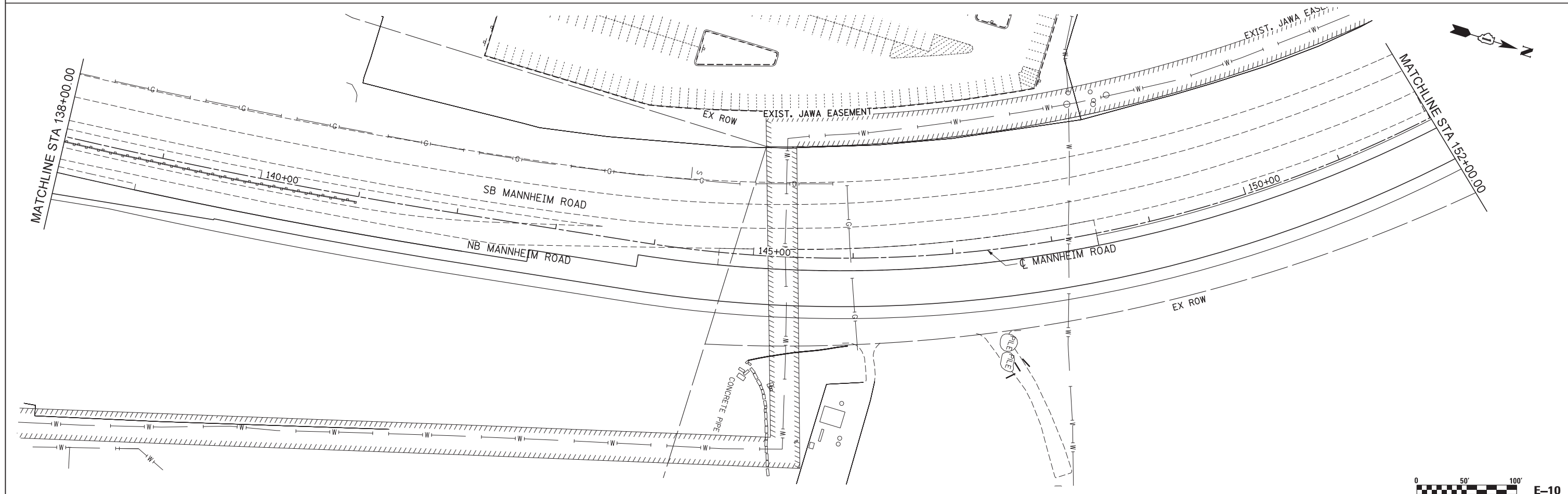
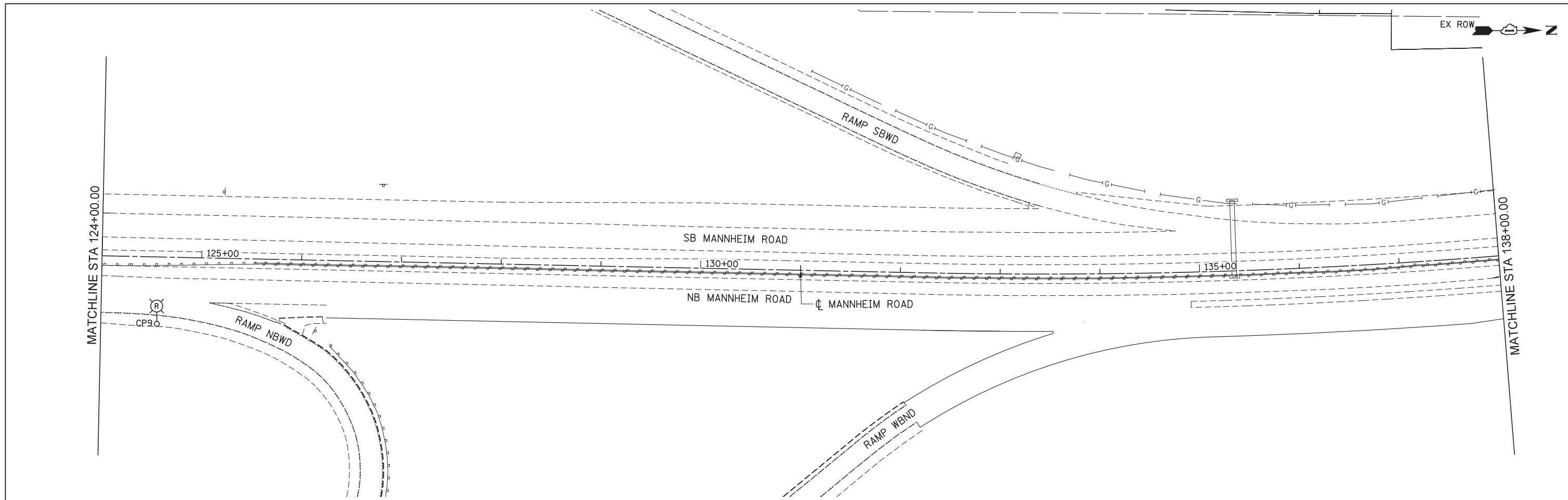
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**LIGHTING REMOVAL PLAN
 STAGE 1A
 MANNHEIM ROAD**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	273
CONTRACT NO. 60P35				

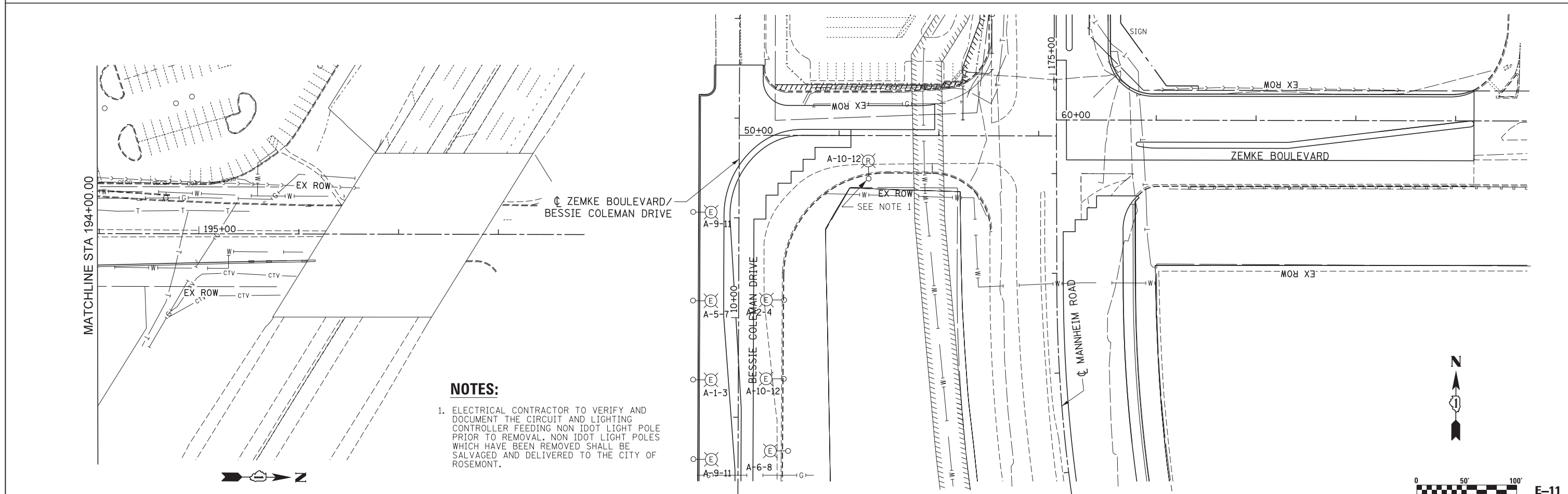
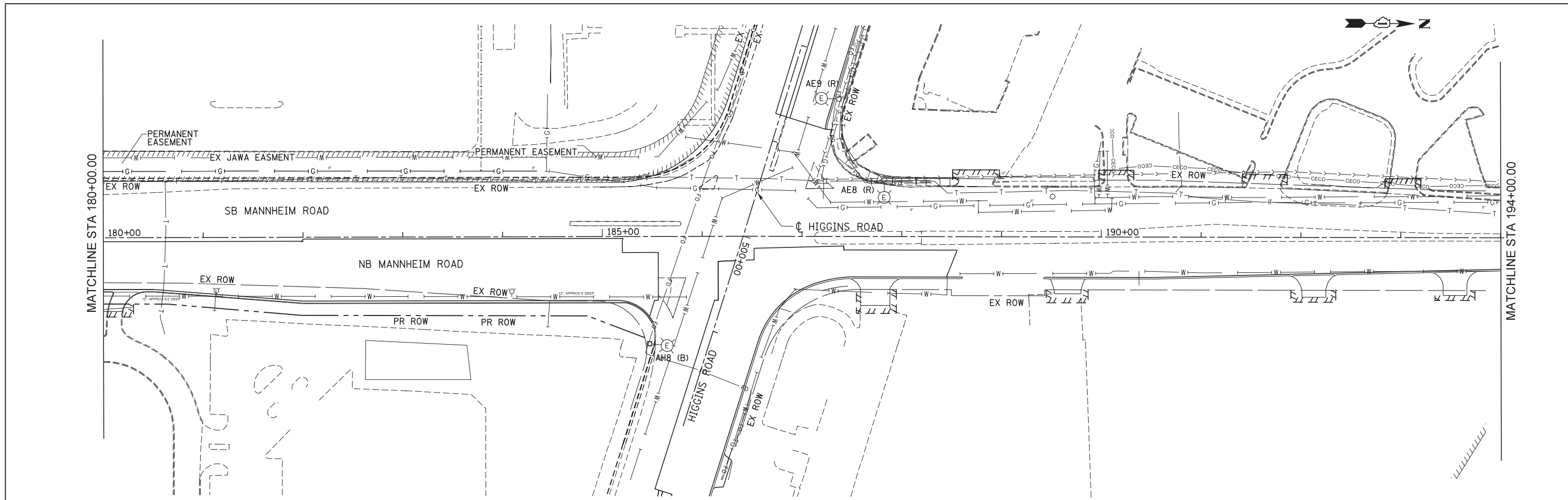
SCALE: 1" = 50' SHEET NO. OF SHEETS STA. BOP TO STA. 124+00.00

ILLINOIS FED. AID PROJECT



	USER NAME = mks01r	DESIGNED <i>CD</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN STAGE 1A MANNHEIM ROAD			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50:1	CHECKED <i>CD</i>	REVISED -		330	0105-WRS	COOK	537	274			
	PLOT DATE = 23-OCT-2012	DATE <i>10/19/12</i>	REVISED -		CONTRACT NO. 60P35			ILLINOIS FED. AID PROJECT				
					SCALE: 1" = 50'	SHEET NO. OF SHEETS	STA. 124+00.00 TO STA. 152+00.00					

FILE NAME = IP_PWP\dms47849\DI60P35-sh1-E-Rmv1 StagingIA 2.dgn

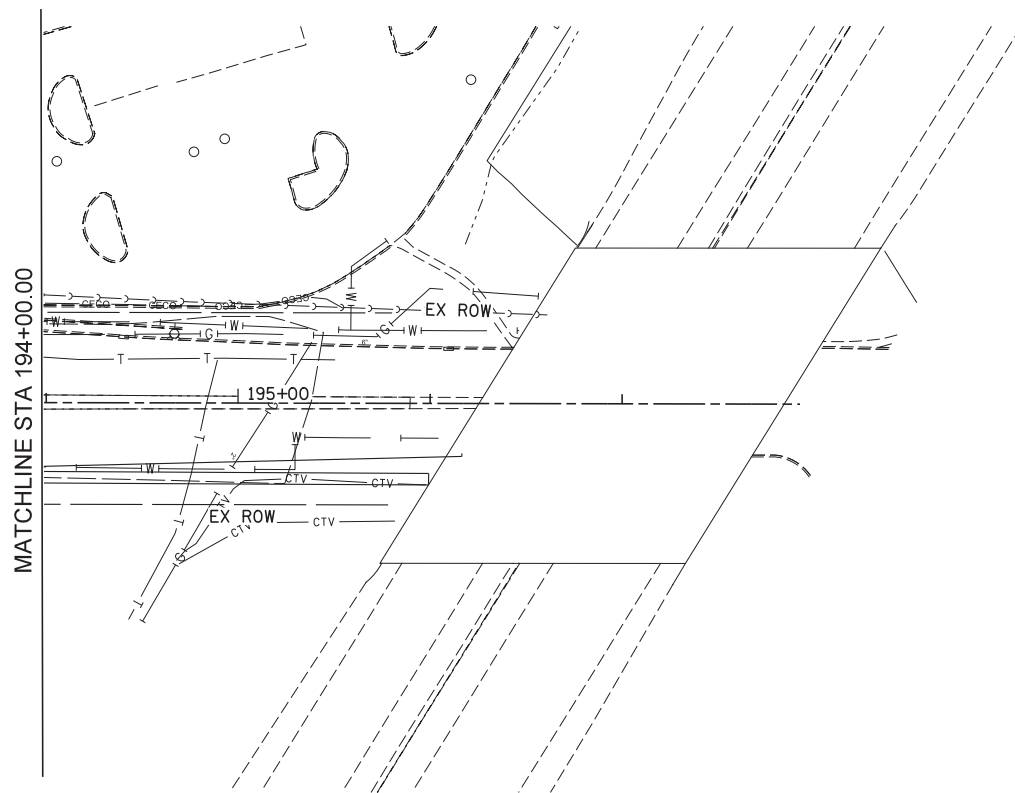
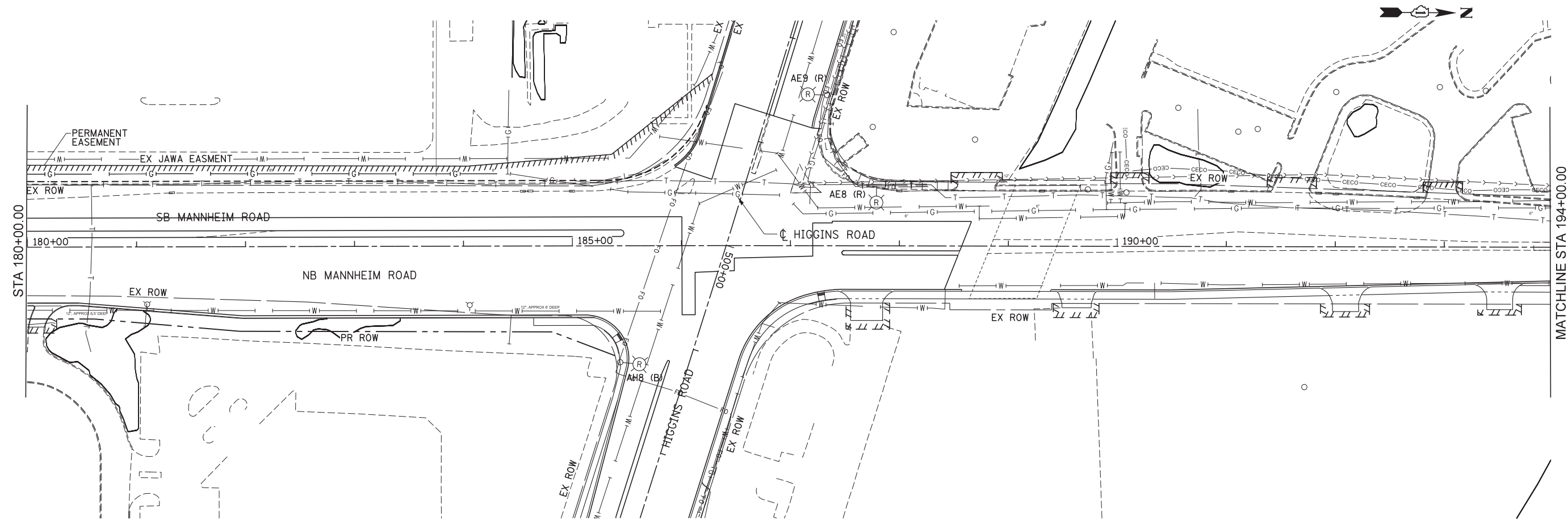


NOTES:

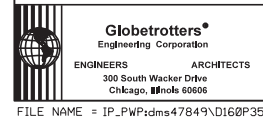
- ELECTRICAL CONTRACTOR TO VERIFY AND DOCUMENT THE CIRCUIT AND LIGHTING CONTROLLER FEEDING NON IDOT LIGHT POLE PRIOR TO REMOVAL. NON IDOT LIGHT POLES WHICH HAVE BEEN REMOVED SHALL BE SALVAGED AND DELIVERED TO THE CITY OF ROSEMONT.

Globetrotters* Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, IL 60606	USER NAME = mkosir	DESIGNED CD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN STAGE 1B MANNHEIM ROAD		F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 275
	PLOT SCALE = 50:1	CHECKED CD	REVISED -		SCALE: 1" = 50'	SHEET NO. OF SHEETS	STA. 180+00.00 TO STA. 196+15.00	CONTRACT NO. 60P35 ILLINOIS FED. AID PROJECT			
	PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -								E-11

FILE NAME = IP_PWP\dms47849\DI60P35-sh1-E-Rmv1 StagingIB 4.dgn



E-12



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PLOT DATE = 23-OCT-2012	CHECKED <i>CD</i>	REVISED -
	DATE <i>10/19/12</i>	REVISED -

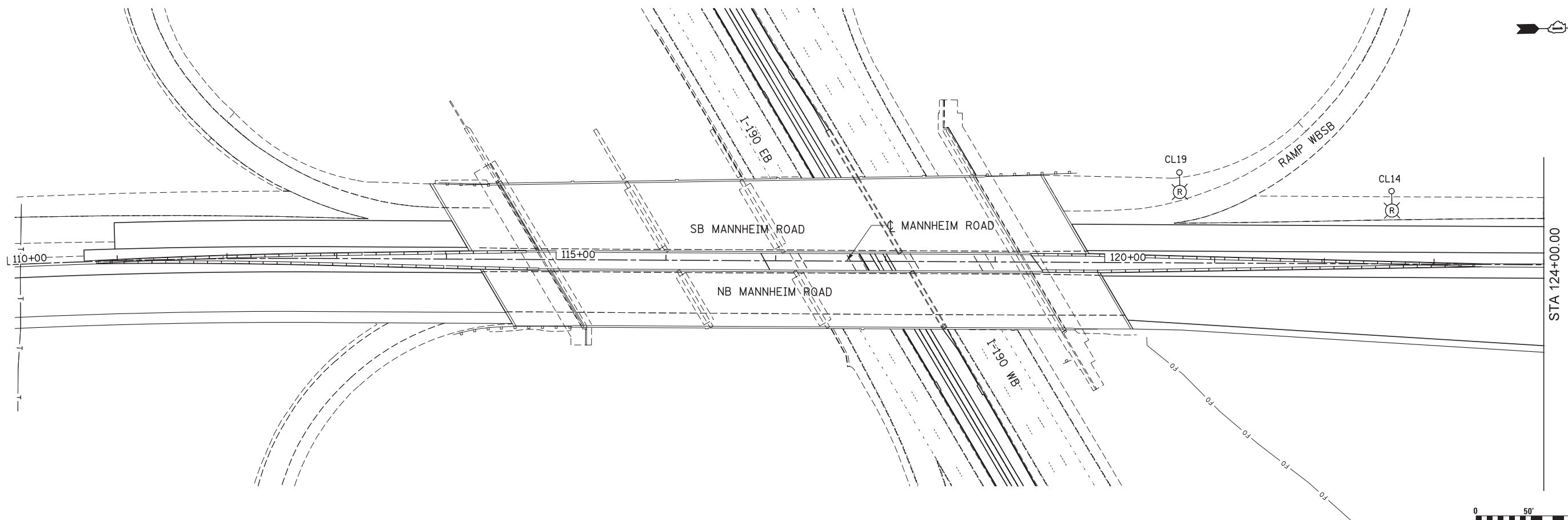
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING REMOVAL PLAN
STAGE 2
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 180+00.00 TO STA. 196+15.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	276
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

FILE NAME = IP_PWP\dms47849\DJ60P35-sh2-E-Rmv1 Staging2 4.dgn



E-13

Globetrotters*
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = mks01r	DESIGNED CD	REVISED -
	DRAWN RL	REVISED -
PLOT SCALE = 50:1	CHECKED CD	REVISED -
PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

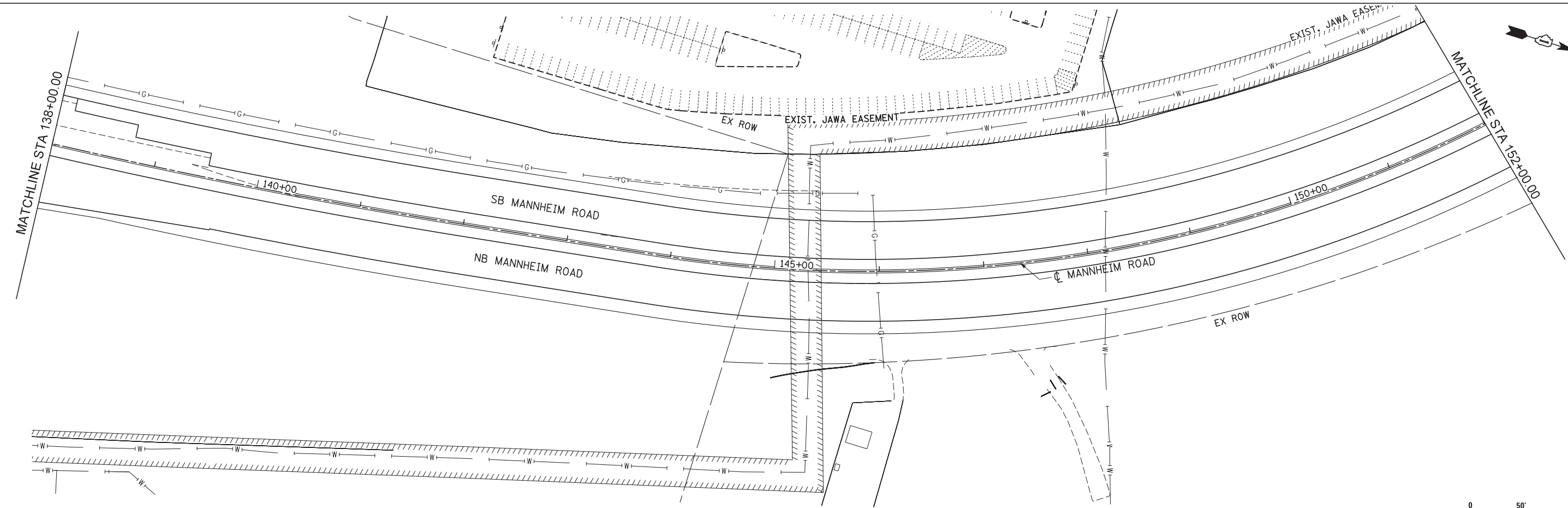
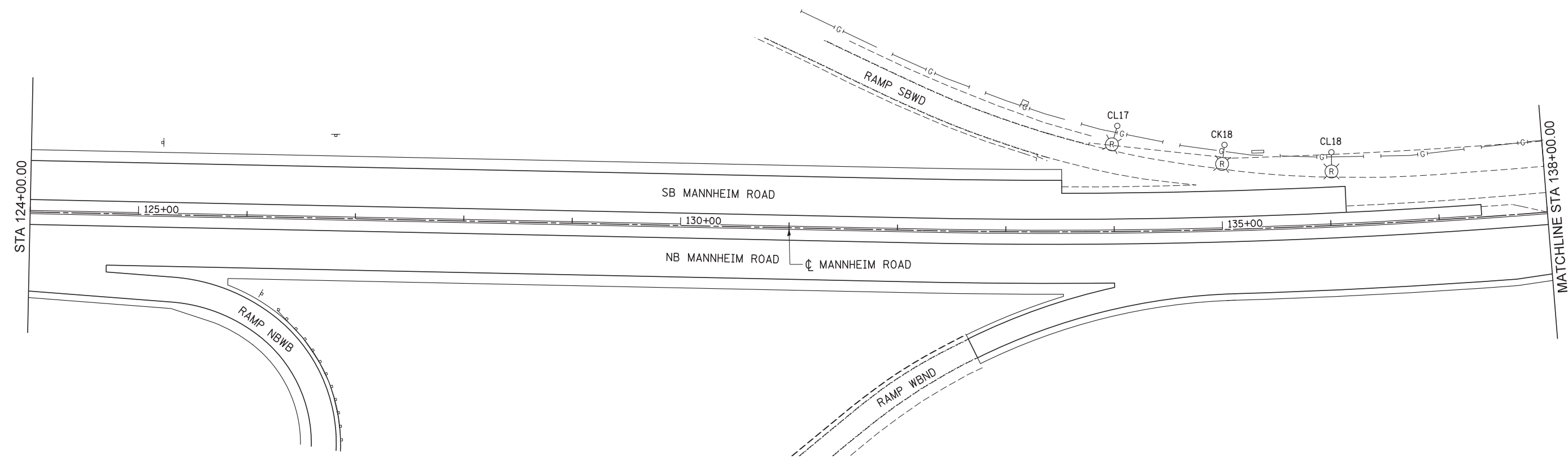
**LIGHTING REMOVAL PLAN
STAGE 2A
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. BOP TO STA. 124+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	277
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60P35	

FILE NAME = IP_PWP\dms47849\0160P35-shr-E-Rmv1 Staging2A 1.dgn

EX ROW 



E-14



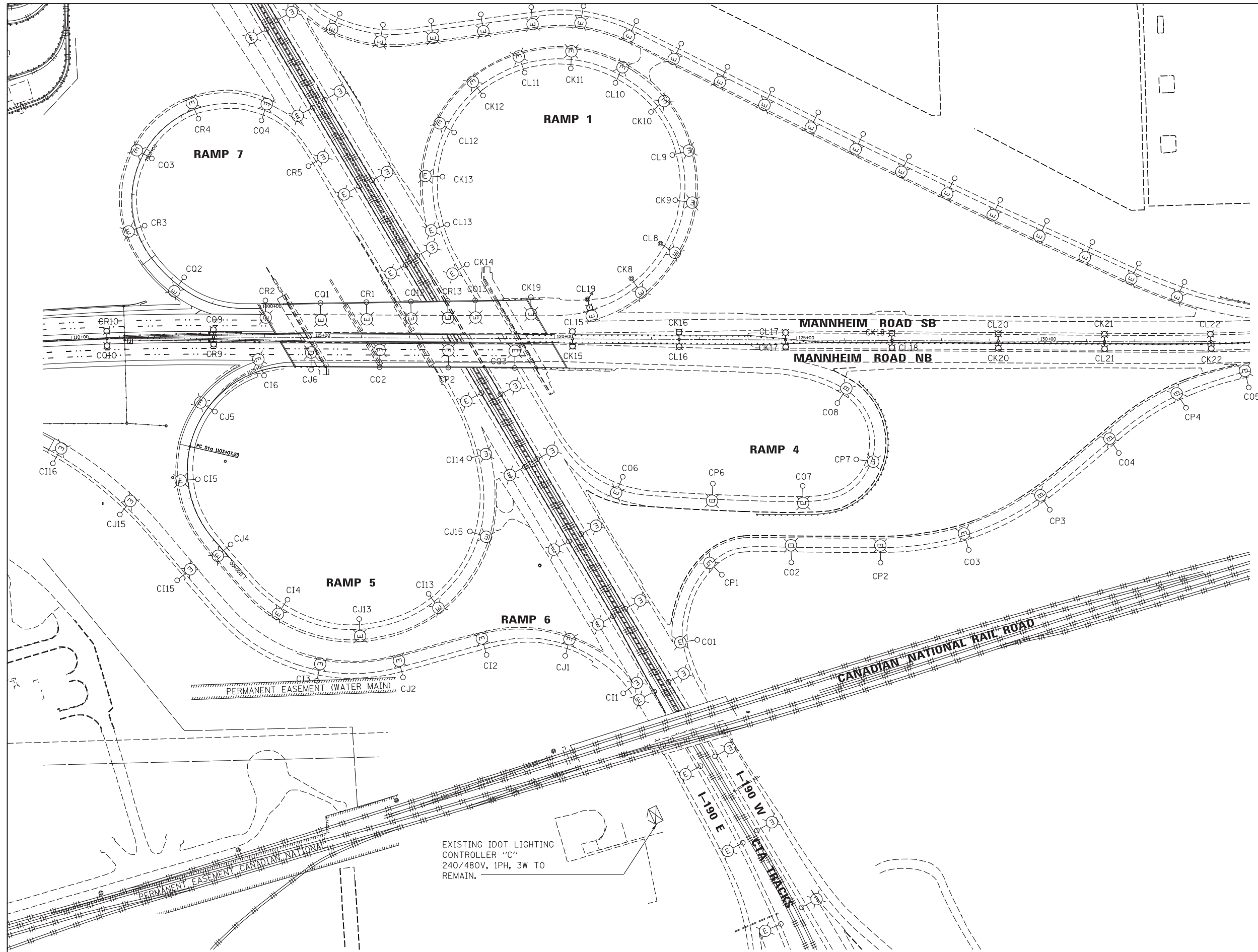
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PLOT SCALE = 50:1	DRAWN RL	REVISED -
PLOT DATE = 23-OCT-2012	CHECKED CD	REVISED -
	DATE 10/19/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING REMOVAL PLAN
STAGING 2B
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 124+00.00 TO STA. 152+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	278
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



EXISTING IDOT LIGHTING
CONTROLLER "C"
240/480V, 1PH, 3W TO
REMAIN.



E-15

Globetrotters*
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = mkosir	DESIGNED CD	REVISED -
PLOT SCALE = 1/8"=1'	DRAWN RL	REVISED -
PLOT DATE = 23-OCT-2012	CHECKED CD	REVISED -
	DATE 10/19/12	REVISED -

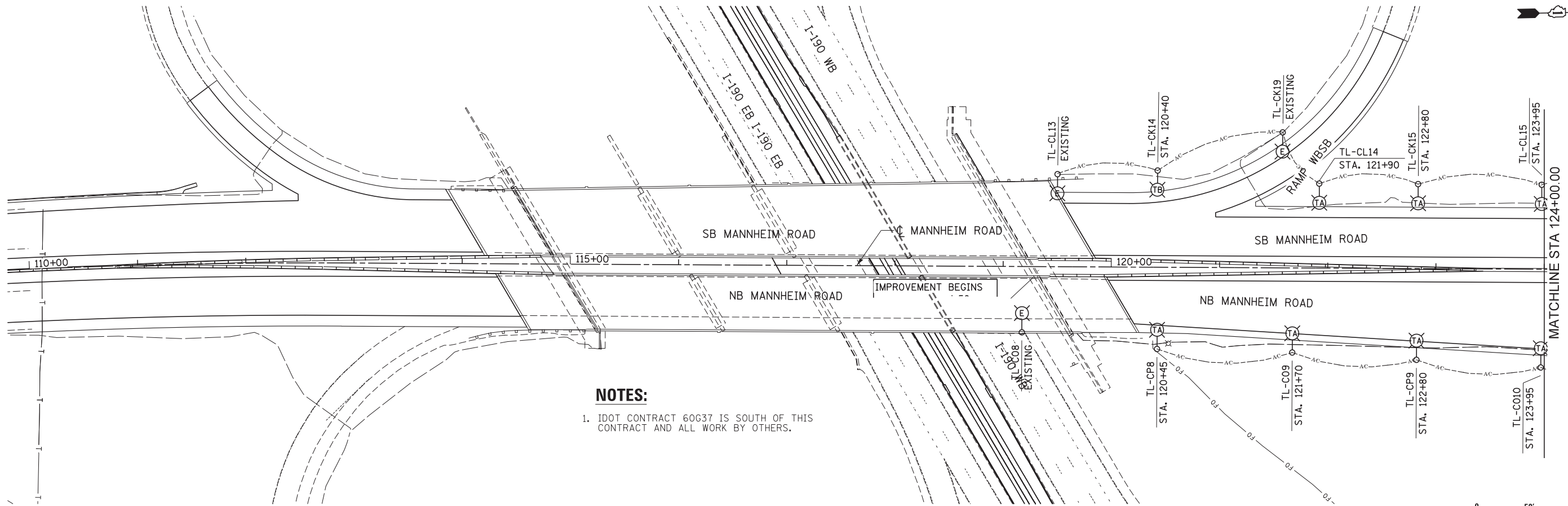
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING REMOVAL PLAN
CONTROLLER C MODIFICATION**

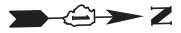
SCALE: 1" = 100' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	279
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

FILE NAME = IP_PWP\dms47849\DJ6P35-sht-E-Rmv1 Staging.dgn



NOTES:
 1. IDOT CONTRACT 60G37 IS SOUTH OF THIS CONTRACT AND ALL WORK BY OTHERS.



E-16

Globetrotters*
 Engineering Corporation
 ENGINEERS ARCHITECTS
 300 South Wacker Drive
 Chicago, IL 60606

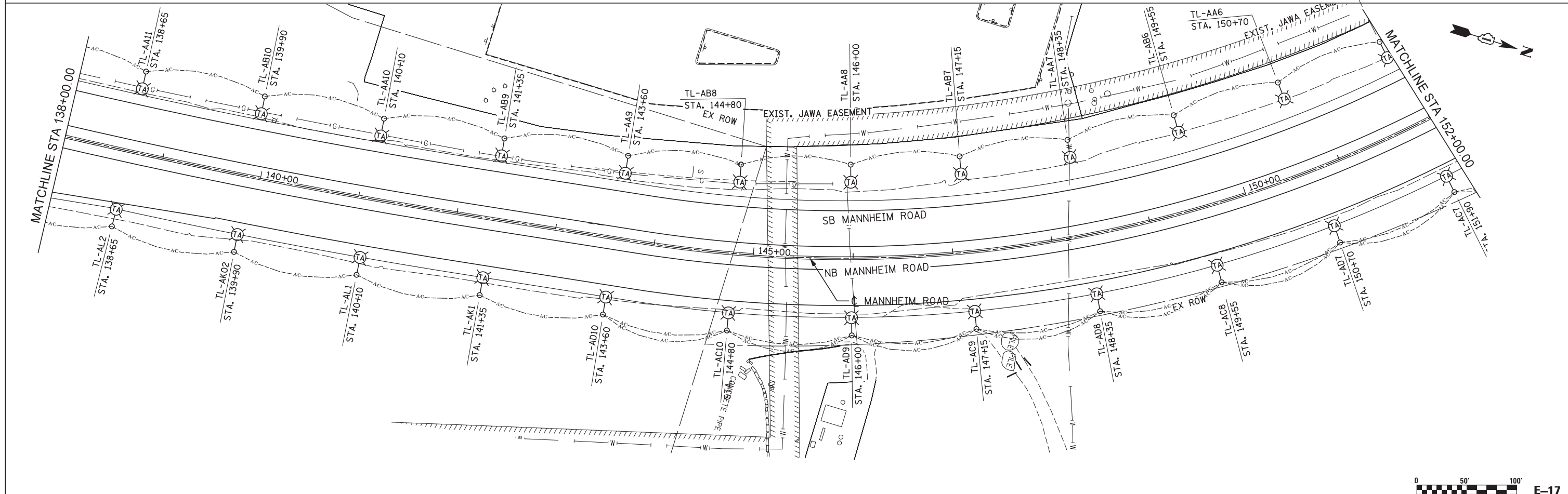
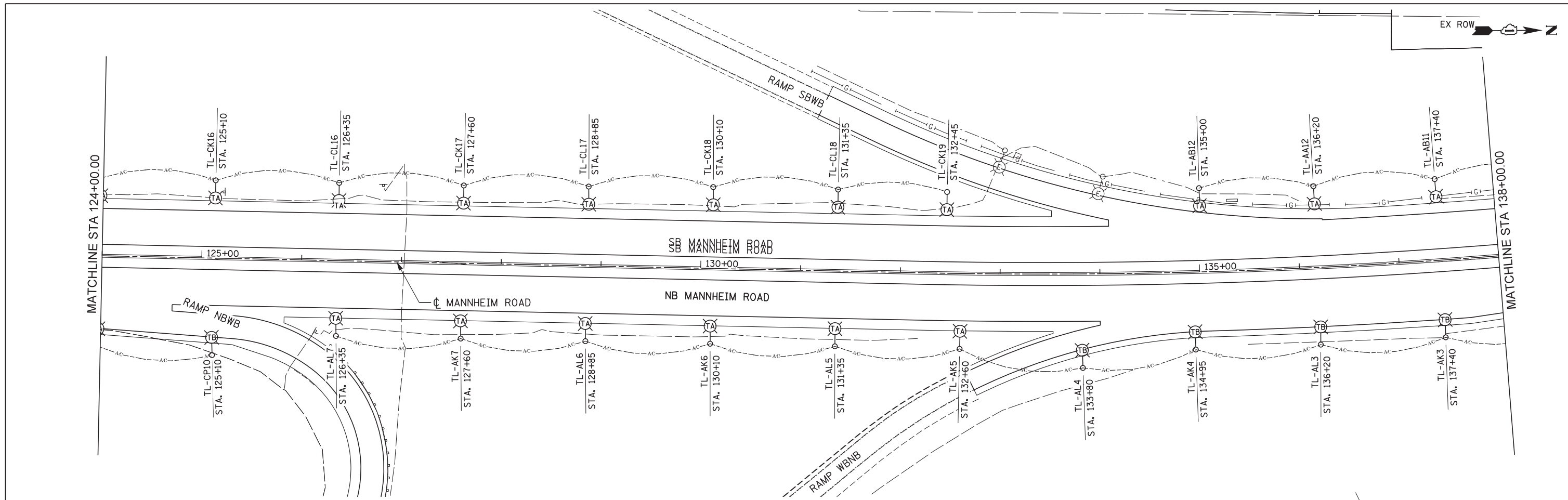
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PLOT SCALE = 50:1	DRAWN RL	REVISED -
PLOT DATE = 23-OCT-2012	CHECKED CD	REVISED -
DATE 10/19/12	DATE 10/19/12	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

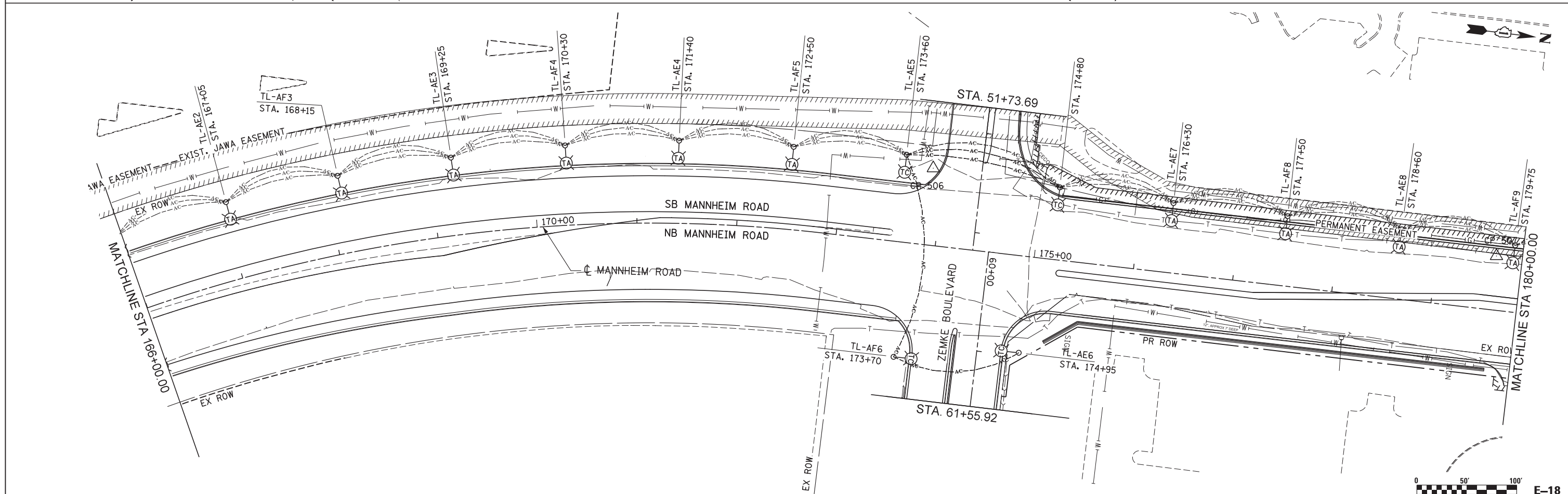
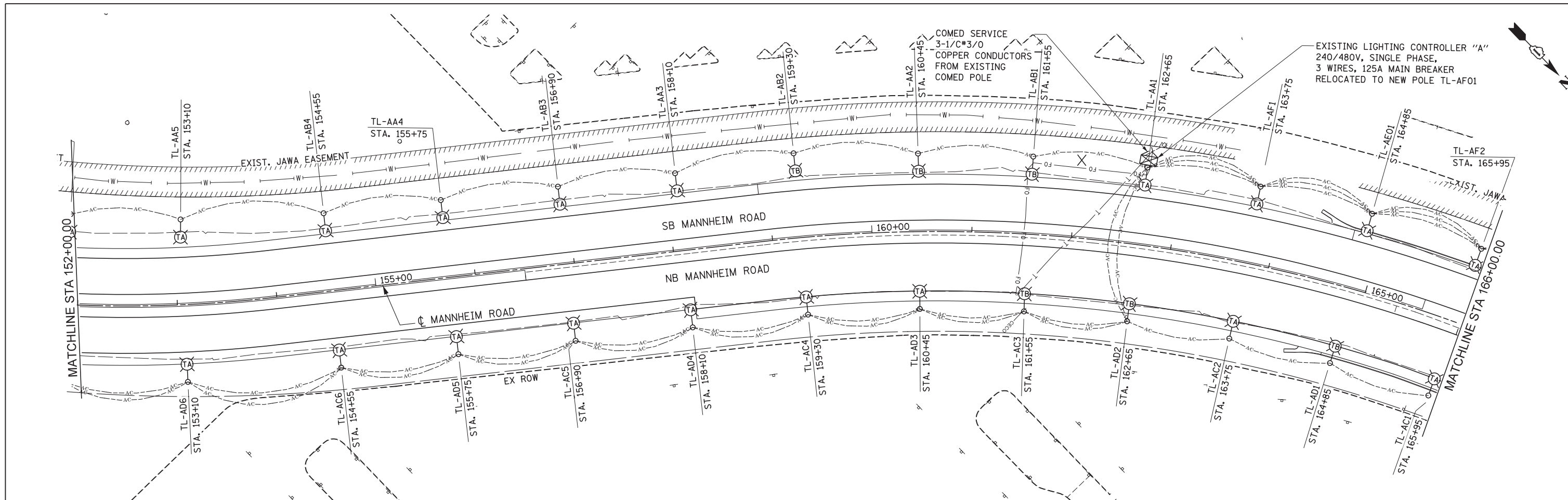
**LIGHTING REMOVAL PLAN
 STAGE 3
 MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. BOP TO STA. 124+00.00

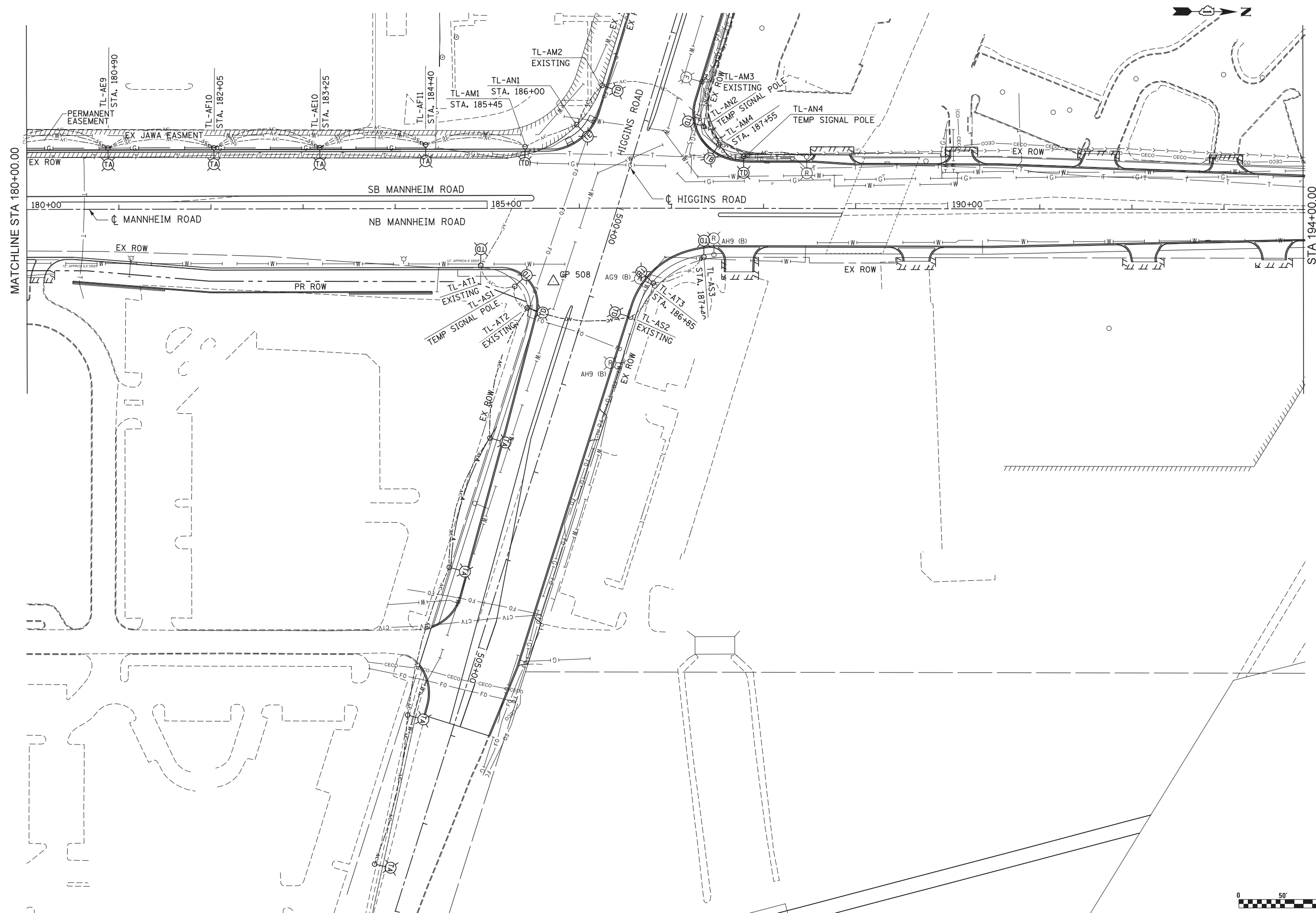
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	280
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



	USER NAME = micosir	DESIGNED CD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN STAGE 3 MANNHEIM ROAD			F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 281
	PLOT SCALE = 50:1	CHECKED CD	REVISED -		SCALE: 1" = 50'			SHEET NO. OF SHEETS STA. 124+00.00 TO STA. 152+00.00			CONTRACT NO. 60P35	
	PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -		ILLINOIS FED. AID PROJECT							
	FILE NAME = IP_PWP\dms47849\DI60P35-sh-t-E-Temp-Rmv1 Staging3 2.dgn											



<p>GloboTrotters[®] Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, IL 60606</p>	USER NAME = micosir	DESIGNED CD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN STAGE 3 MANNHEIM ROAD			F.A.P. RT. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 282	
	PLOT SCALE = 50:1	CHECKED CD	REVISED -		SCALE: 1" = 50'	SHEET NO. OF SHEETS	STA. 152+00.00 TO STA. 180+00.00	CONTRACT NO. 60P35					
	PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -		ILLINOIS FED. AID PROJECT								
	FILE NAME = IP_PWP\dms47849\DI60P35-sh-t-E-Temp-Rmv1 Staging3 3.dgn												



Globetrotters
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = mks01r	DESIGNED CD	REVISED -
PLOT SCALE = 50:1	DRAWN RL	REVISED -
PLOT DATE = 23-OCT-2012	CHECKED CD	REVISED -
	DATE 10/19/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING REMOVAL PLAN
STAGE 3
MANNHEIM ROAD**

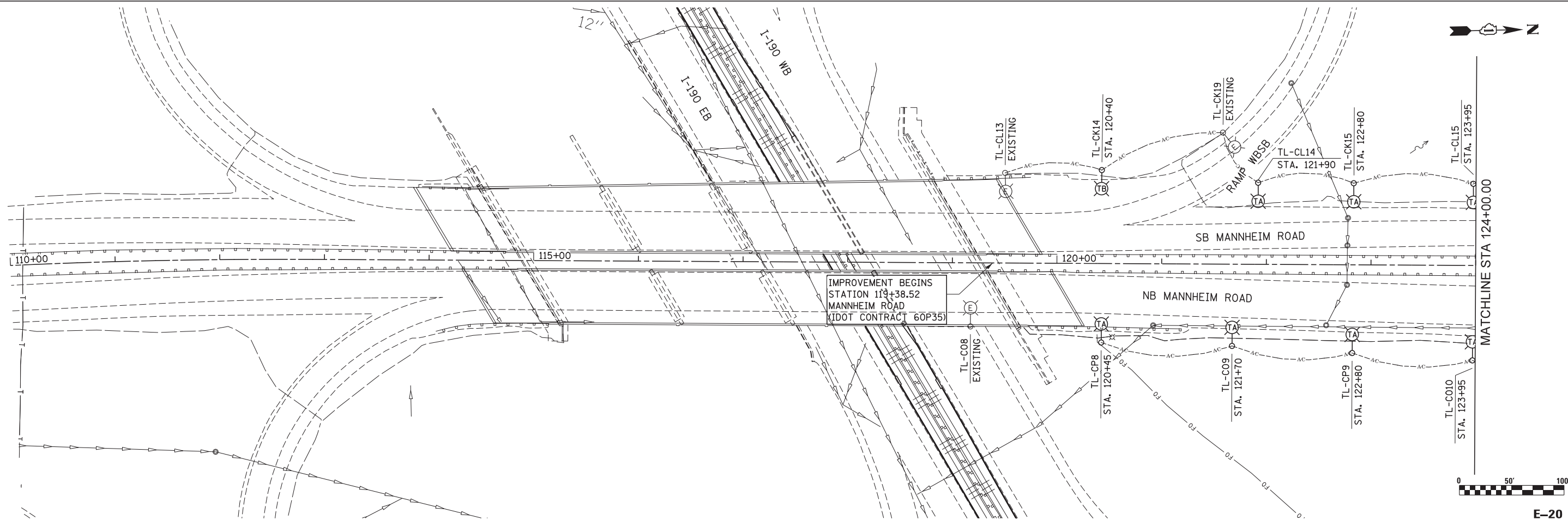
SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 180+00.00 TO STA. 196+15.00

F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 283
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

FILE NAME = IP_PWP\dms47849\DI60P35-sh1-E-Temp-Rmv1 Staging3 4.dgn

NOTES:

1. IDOT CONTRACT 60G37 IS SOUTH OF THIS CONTRACT AND ALL WORK DONE BY OTHERS.



USER NAME = mkosir	DESIGNED KA	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 50:1	CHECKED MCD	REVISED -
PLOT DATE = 23-OCT-2012	DATE 10/19/12	REVISED -

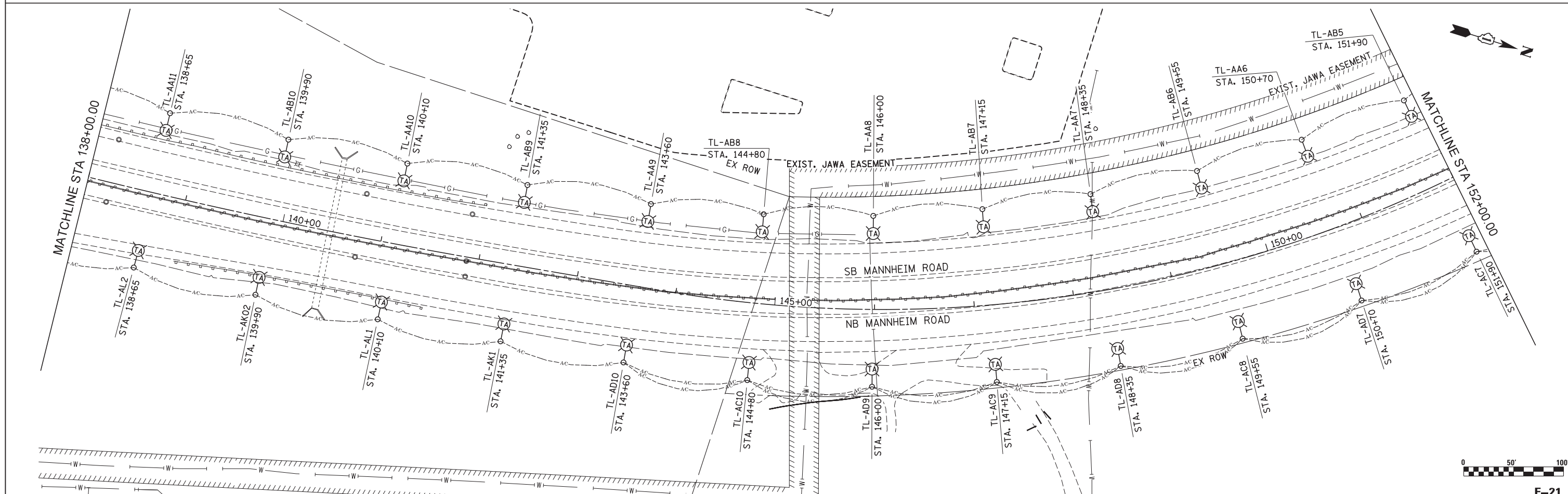
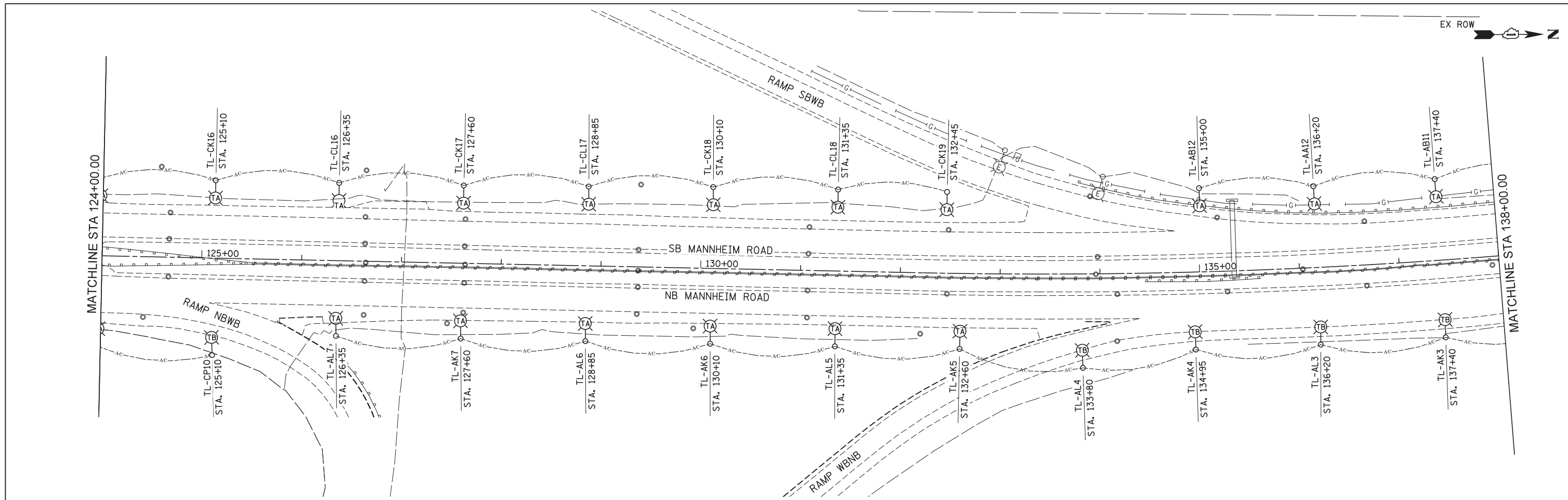
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**TEMPORARY LIGHTING PLAN
PRESTAGE
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. 1 OF 5 SHEETS STA. BOP TO STA. 124+00.00

F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 284
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

E-20



USER NAME = mksosr
 DRAWN MMK
 CHECKED MCD
 DATE 10/19/12

DESIGNED KA
 DRAWN MMK
 CHECKED MCD
 DATE 10/19/12

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

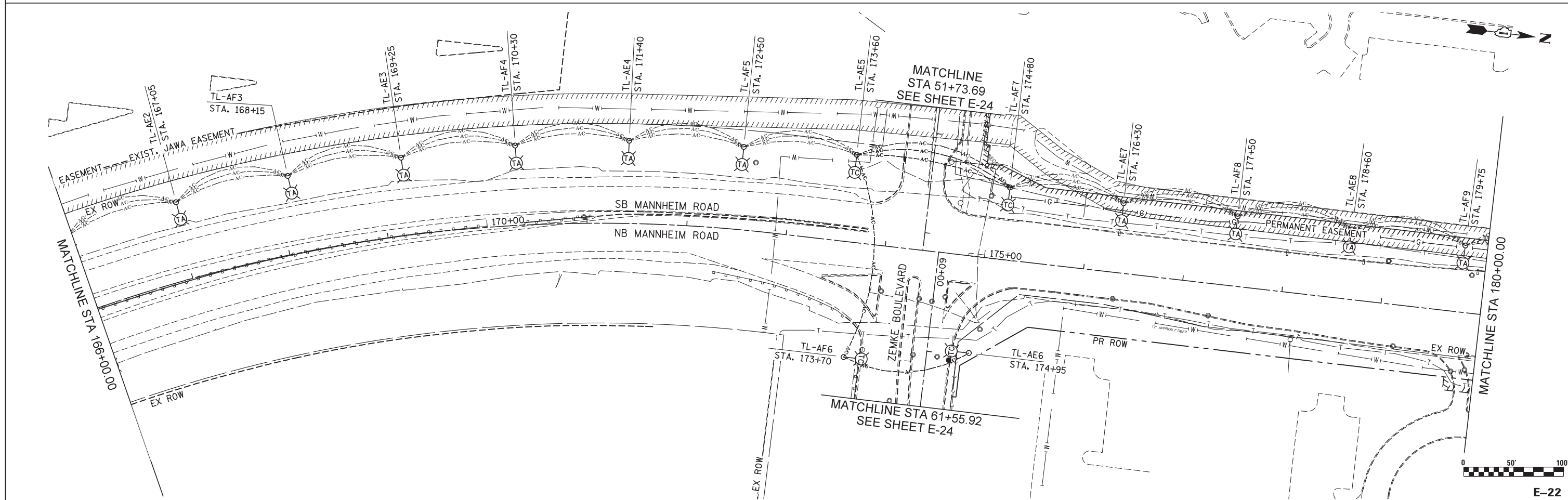
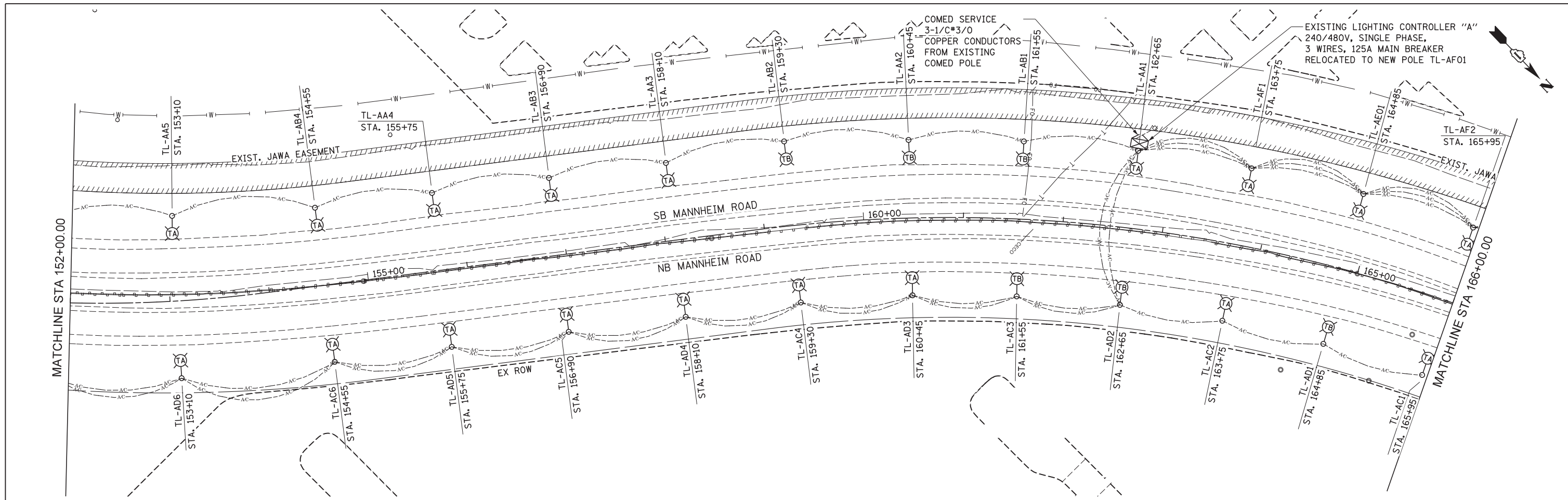
TEMPORARY LIGHTING PLAN
 PRESTAGE
 MANNHEIM ROAD

SCALE: 1" = 50' SHEET NO. 2 OF 5 SHEETS STA. 124+00.00 TO STA. 152+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	285
CONTRACT NO. 60P35				



E-21



USER NAME = mkosir
 PLOT SCALE = 50:1
 PLOT DATE = 23-OCT-2012

DESIGNED KA
 DRAWN MMK
 CHECKED MCD
 DATE 10/19/12

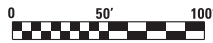
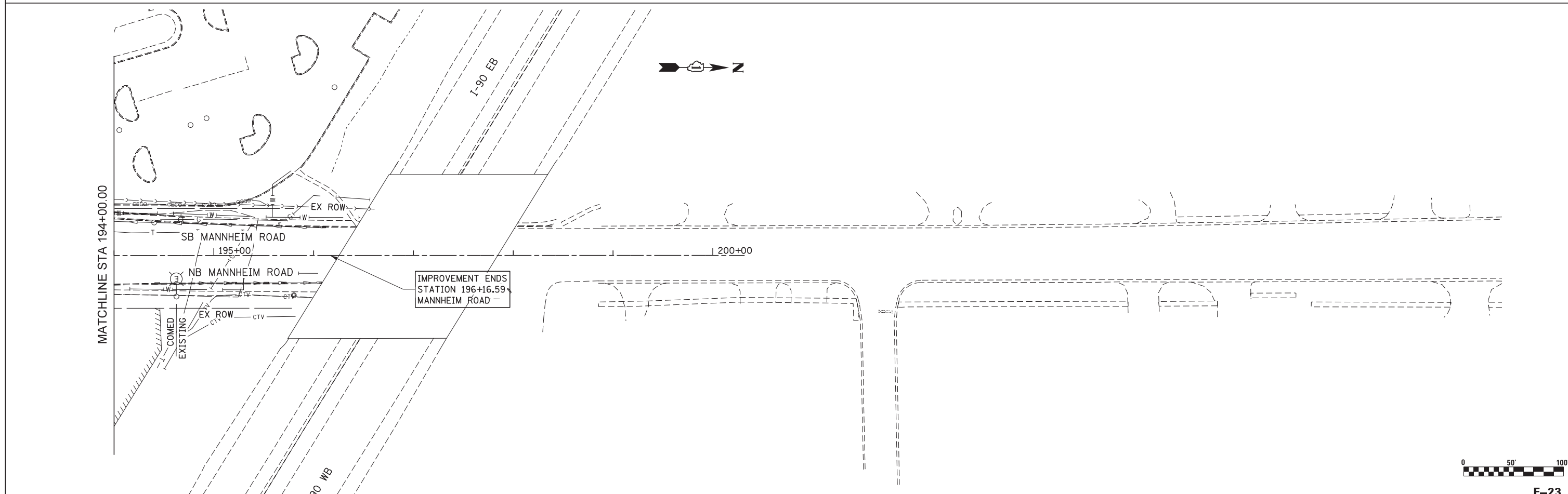
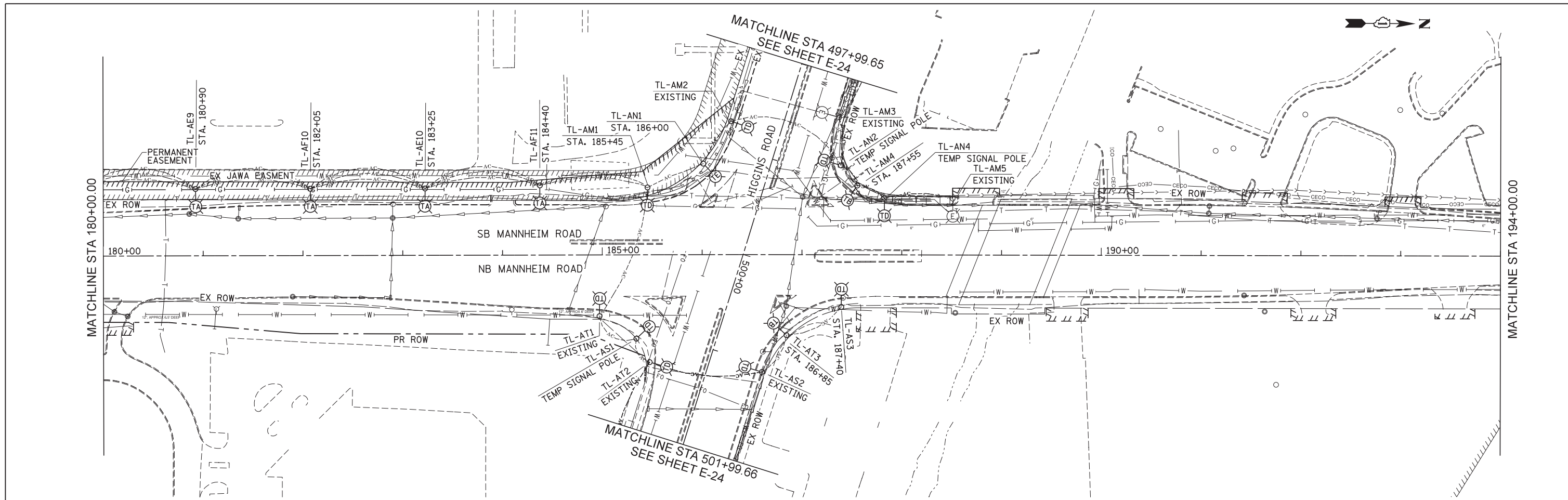
REVISED -
 REVISED -
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 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING PLAN
 PRESTAGE
 MANNHEIM ROAD

SCALE: 1" = 50' SHEET NO. 3 OF 5 SHEETS STA. 152+00.00 TO STA. 180+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	286
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



E-23



USER NAME = mksosir
 DRAWN MMK
 CHECKED MCD
 DATE 10/19/12

DESIGNED KA
 DRAWN MMK
 CHECKED MCD
 DATE 10/19/12

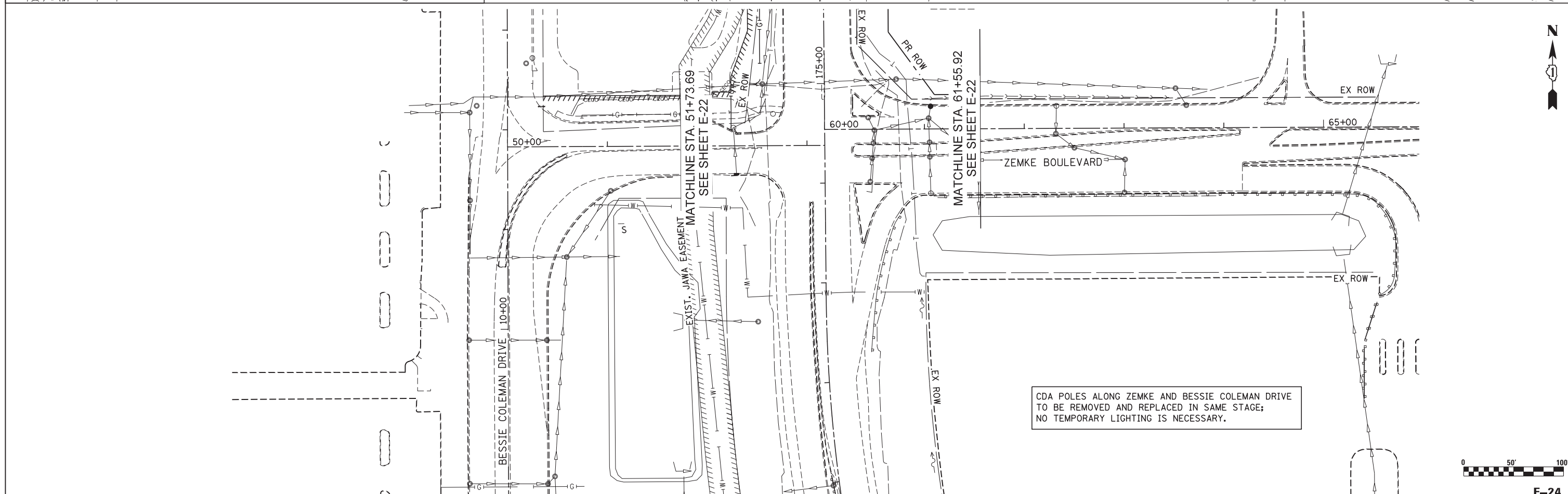
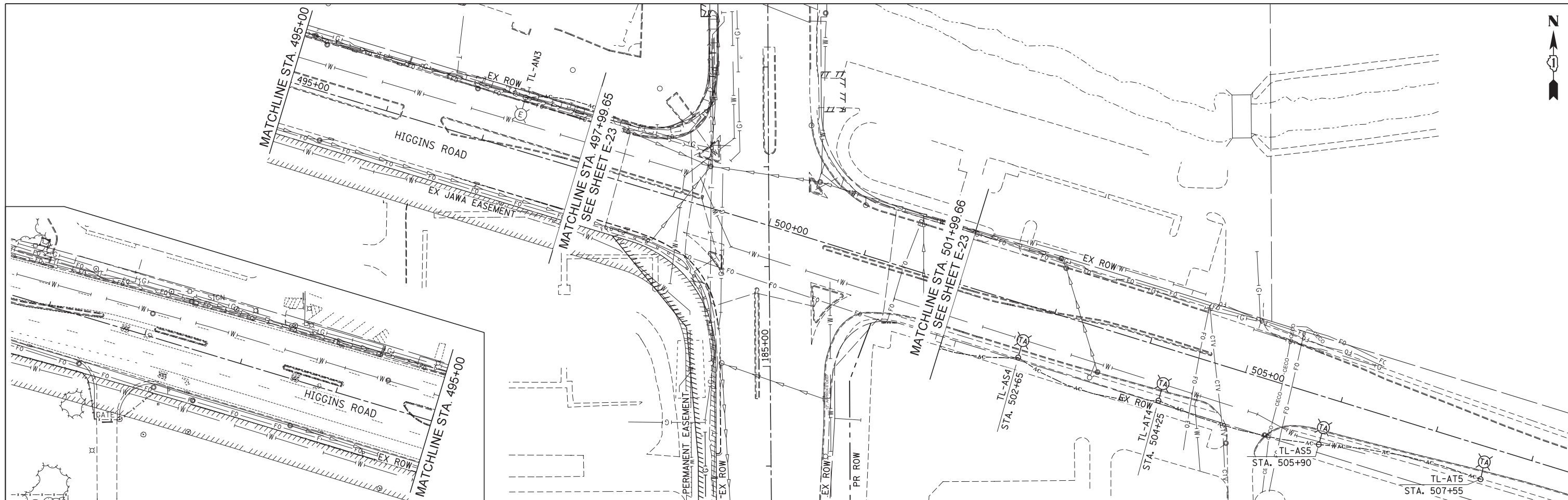
REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING PLAN
 PRESTAGE
 MANNHEIM ROAD

SCALE: 1" = 50' SHEET NO. 4 OF 5 SHEETS STA. 180+00.00 TO STA. 196+15.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	287
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



USER NAME = mkosir
 DRAWN MMK
 CHECKED MCD
 PLOT DATE = 23-OCT-2012

DESIGNED KA
 DATE 10/19/12

REVISED -
 REVISED -
 REVISED -
 REVISED -

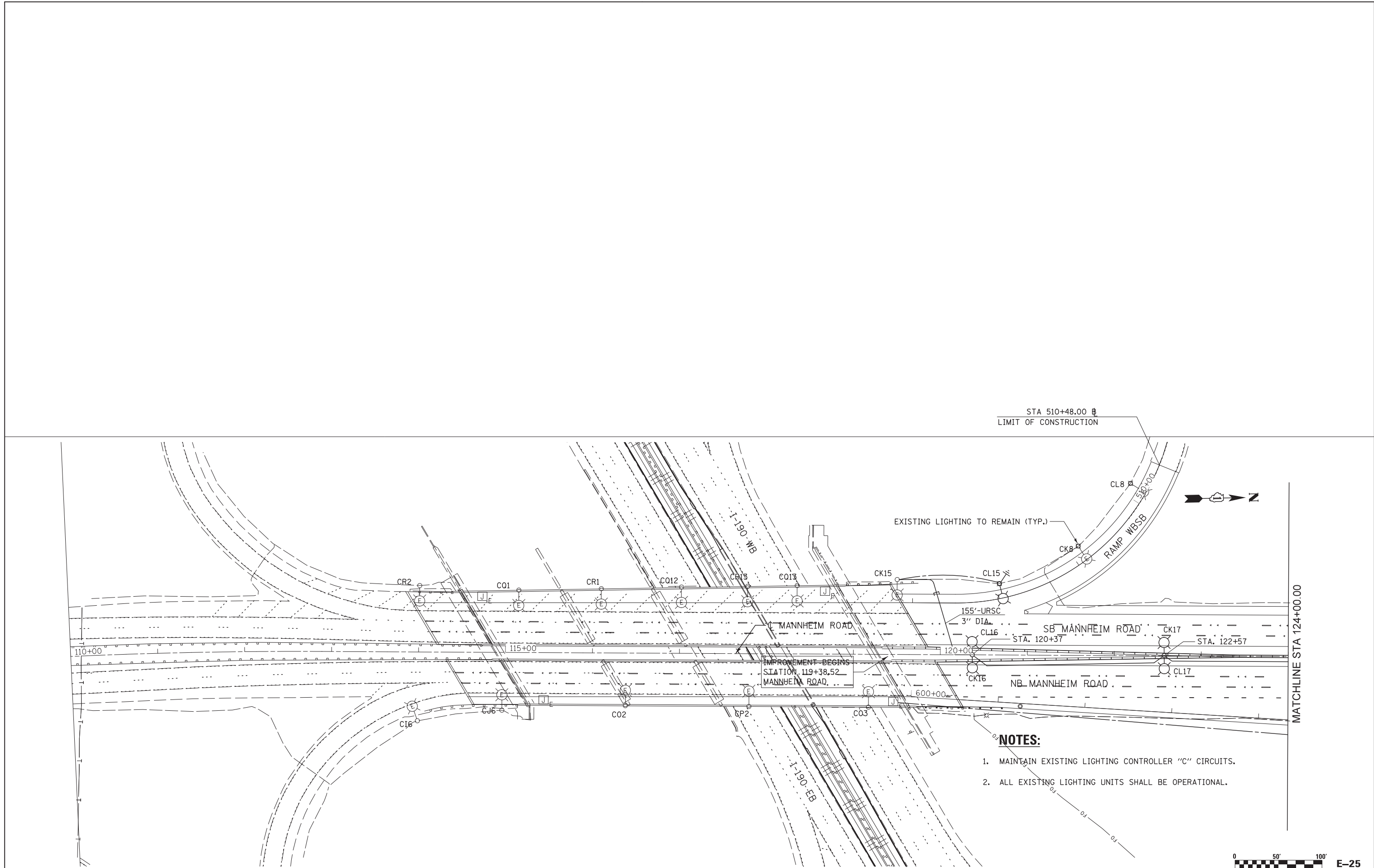
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

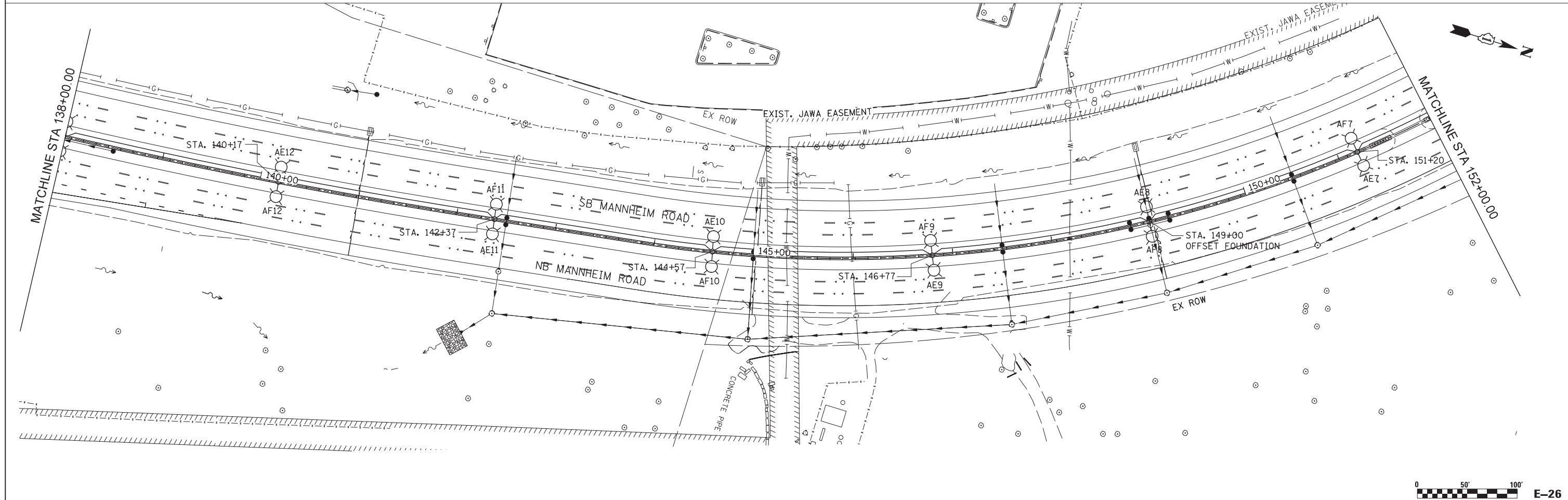
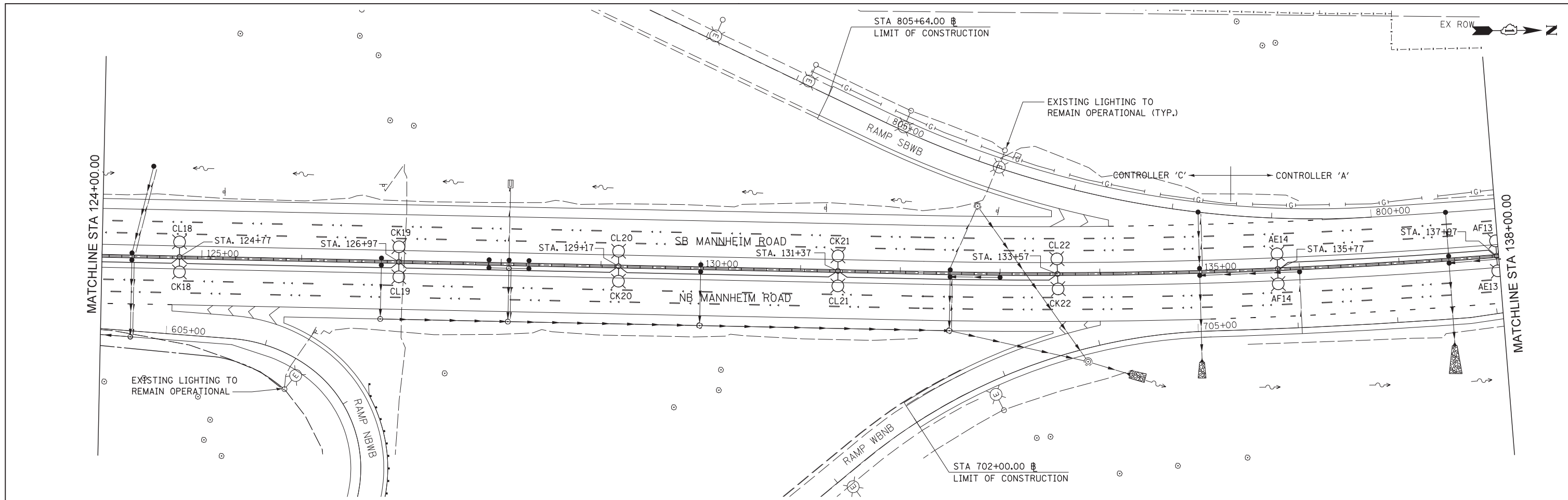
TEMPORARY LIGHTING PLAN
 PRESTAGE
 HIGGINS ROAD AND ZEMKE BOULEVARD

SCALE: 1" = 50' SHEET NO. 5 OF 5 SHEETS STA. BOP TO STA. EOP

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	288
CONTRACT NO. 60P35				

ILLINOIS FED. AID PROJECT





USER NAME = mali	DESIGNED - HS	REVISED -
PLOT SCALE = *SCALE*	DRAWN - KK	REVISED -
PLOT DATE = 10/5/2012	CHECKED - HS	REVISED -
	DATE - 10-19-2012	REVISED -

DESIGNED - HS	REVISED -
DRAWN - KK	REVISED -
CHECKED - HS	REVISED -
DATE - 10-19-2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

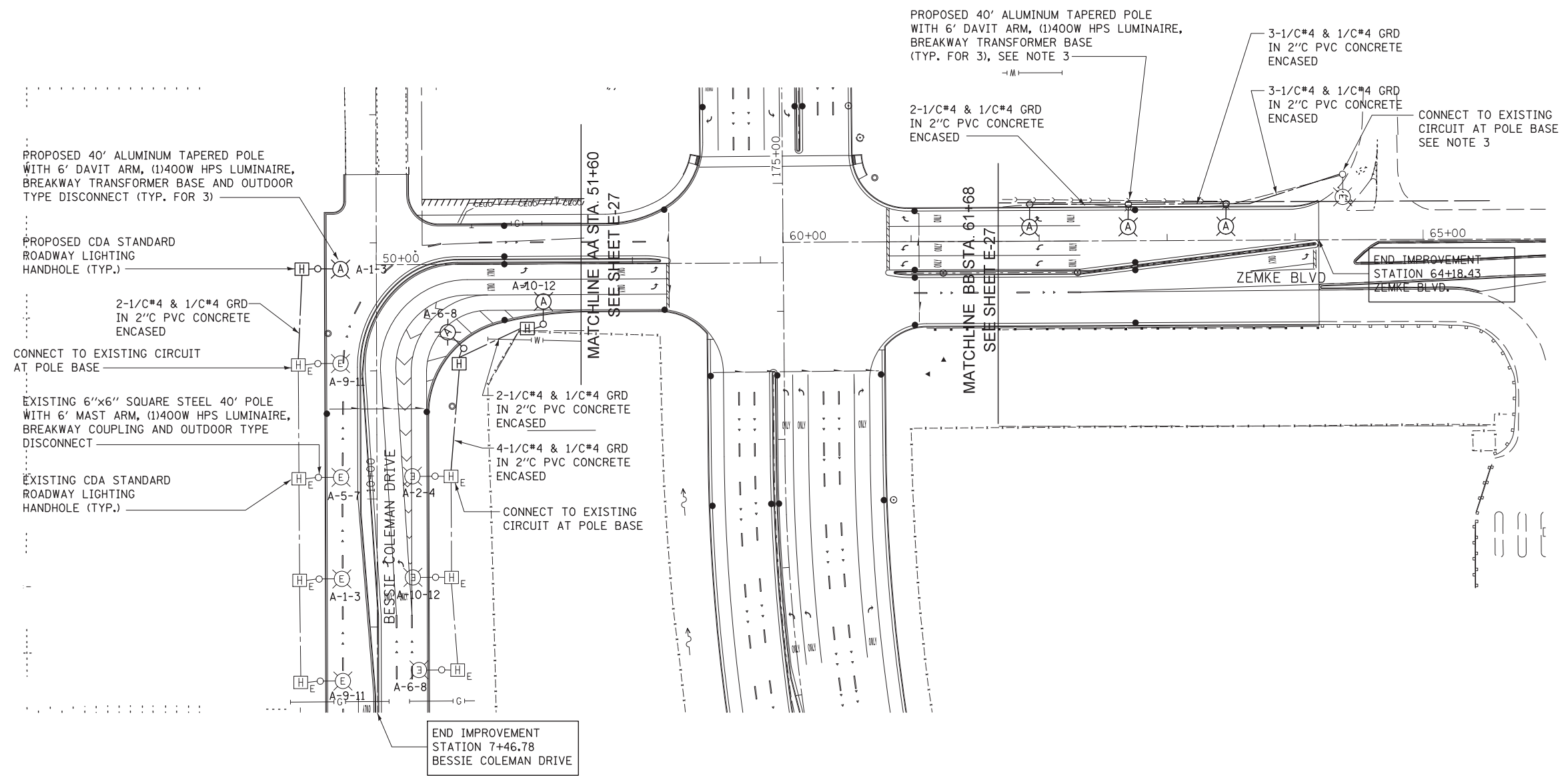
**PROPOSED LIGHTING PLAN
MANNHEIM ROAD**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 124+00.00 TO STA. 152+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	290
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				



FILE NAME = c:\cadd\lib\p\k\khan\p\p\great_lakes\dms47849\0160P35-sht-light-3.dgn



NOTES:

1. ALL FIXTURES SHOWN ON BESSIE COLEMAN DRIVE TO BE 480V, 1PH. MATCH VOLTAGE WITH EXISTING LIGHTING CIRCUIT.
2. ALL CONDUITS (UNDERGROUND) TO BE PVC CONCRETE ENCASED, SIZE AS SHOWN ON PLAN.
3. THE PROPOSED LIGHTING FIXTURE VOLTAGE SHALL MATCH WITH THE EXISTING LIGHTING FIXTURE VOLTAGE OF CITY OF ROSEMONT.



USER NAME = mali	DESIGNED - HS	REVISED -
	DRAWN - KK	REVISED -
PLOT SCALE = *SCALE*	CHECKED - HS	REVISED -
PLOT DATE = 10/5/2012	DATE - 10-19-2012	REVISED -

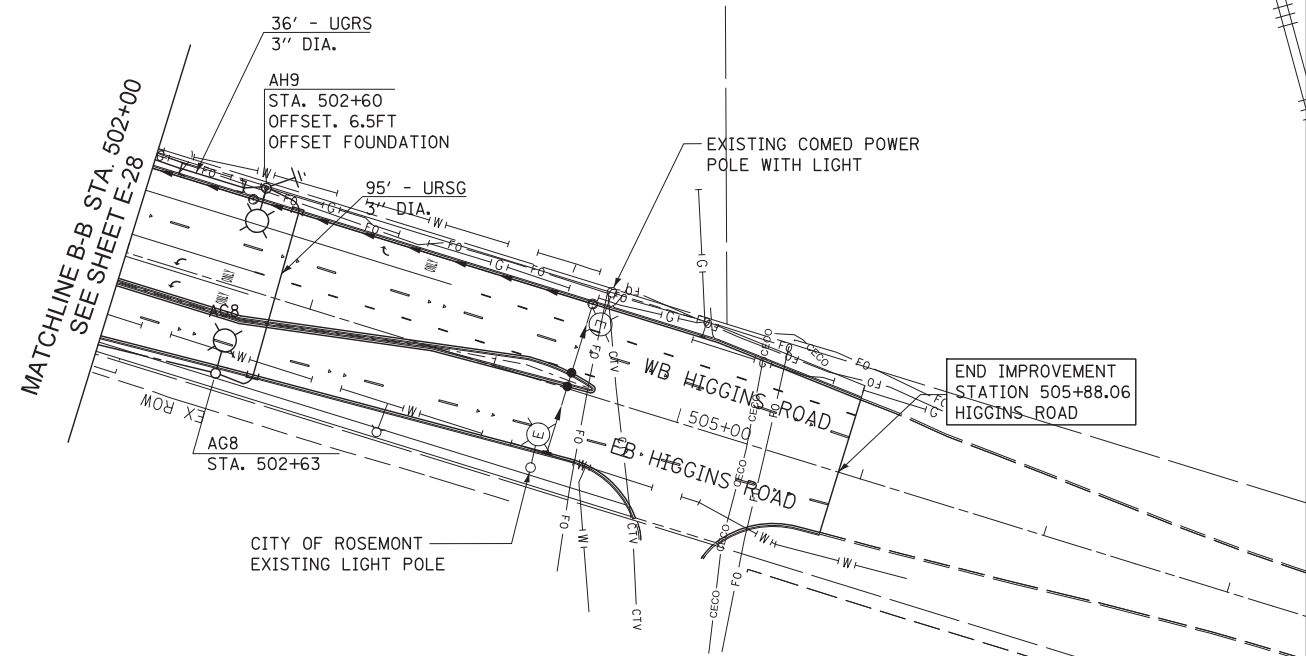
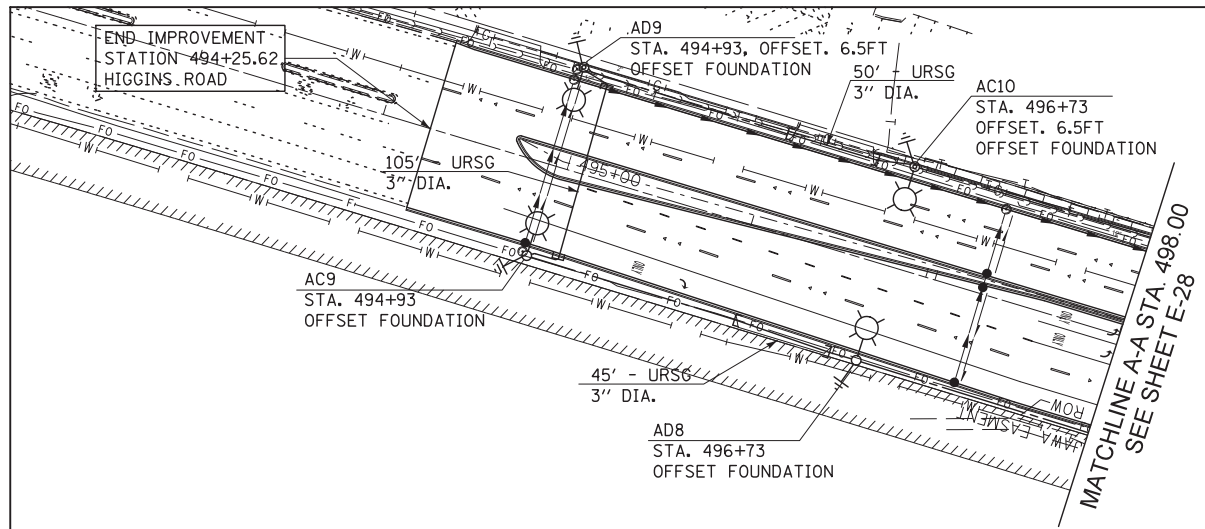
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN
ZEMKE BLVD AND BESSIE COLEMAN DRIVE**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 7+46.78 TO STA. 64+18.43

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	293
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

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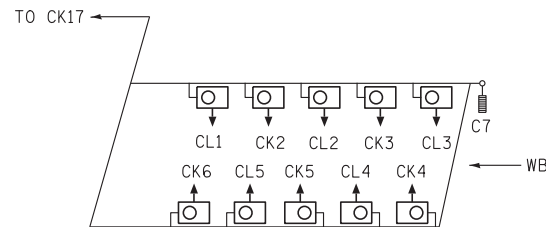
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	DRAWN - KK	REVISED -
PLOT SCALE = *SCALE*	CHECKED - HS	REVISED -
PLOT DATE = 10/5/2012	DATE - 10-19-2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

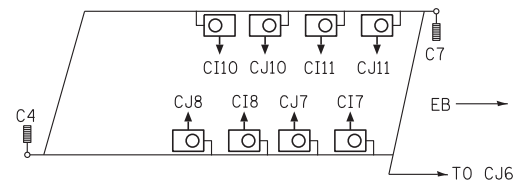
PROPOSED LIGHTING PLAN HIGGINS ROAD			
SCALE: 1" = 50'	SHEET NO. OF SHEETS	STA. 494+25.62 TO STA. 505+88.06	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	294
CONTRACT NO. 60P35				
ILLINOIS FED. AID PROJECT				

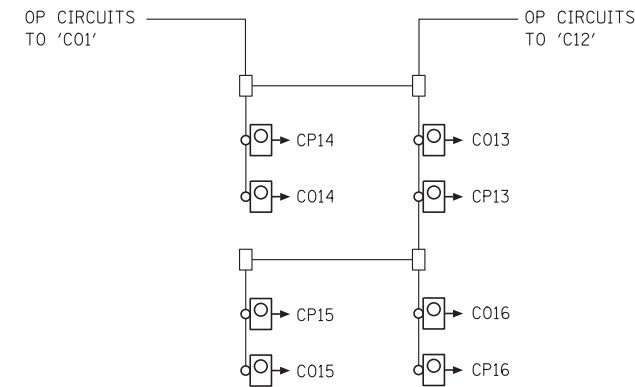
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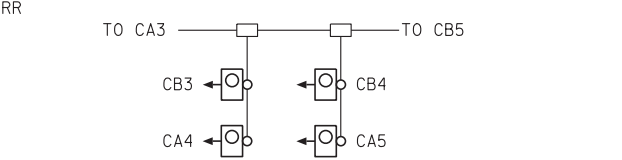
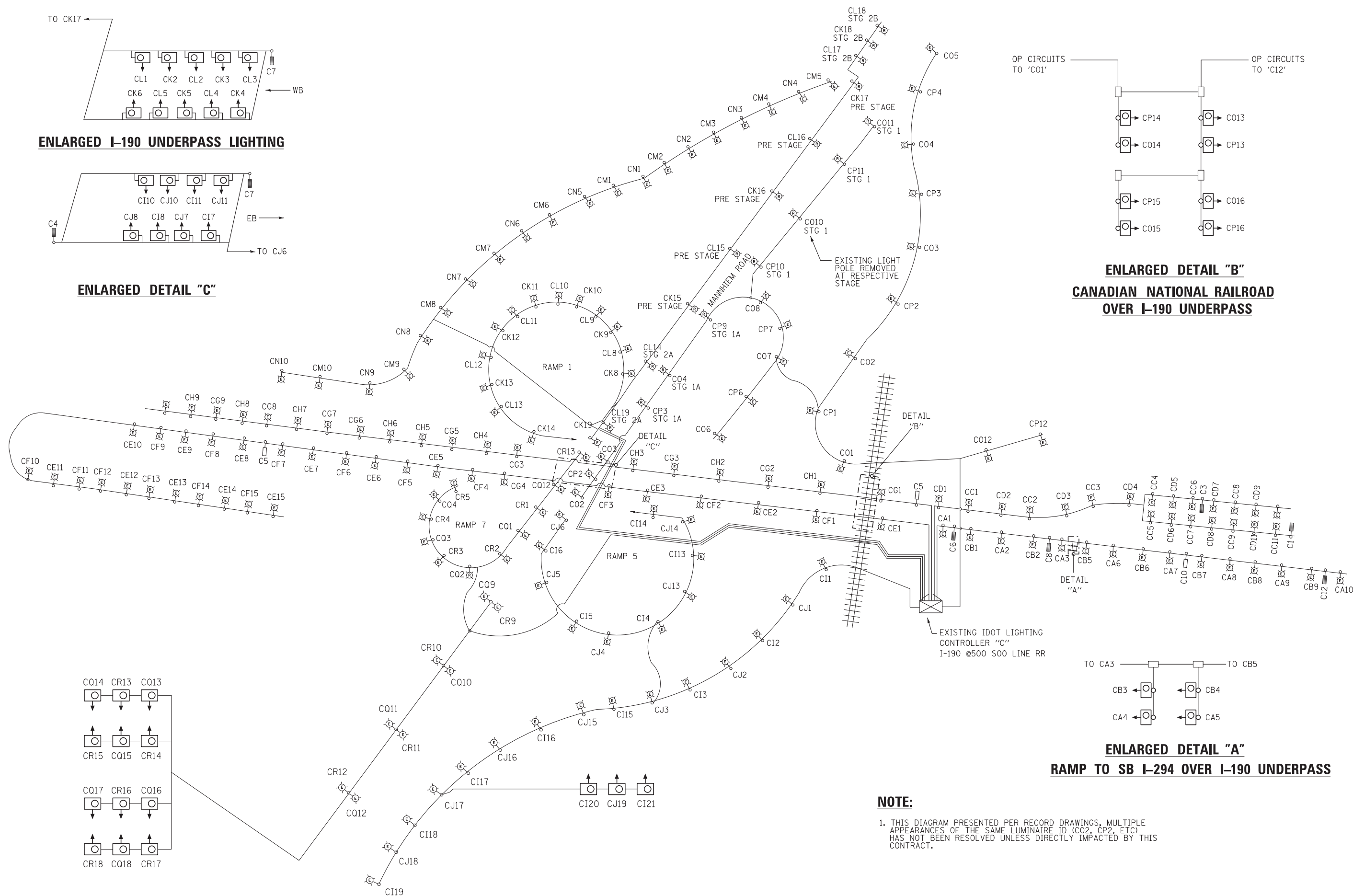
ENLARGED I-190 UNDERPASS LIGHTING



ENLARGED DETAIL "C"



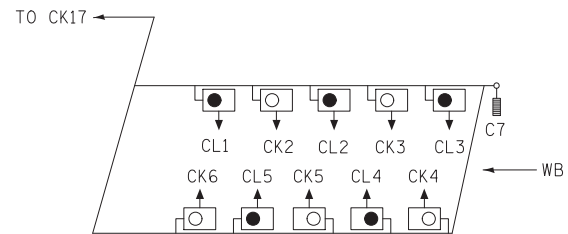
ENLARGED DETAIL "B"
CANADIAN NATIONAL RAILROAD
OVER I-190 UNDERPASS



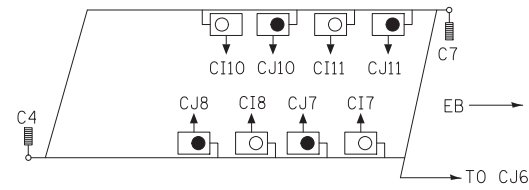
ENLARGED DETAIL "A"
RAMP TO SB I-294 OVER I-190 UNDERPASS

NOTE:
1. THIS DIAGRAM PRESENTED PER RECORD DRAWINGS, MULTIPLE APPEARANCES OF THE SAME LUMINAIRE ID (C02, CP2, ETC) HAS NOT BEEN RESOLVED UNLESS DIRECTLY IMPACTED BY THIS CONTRACT.

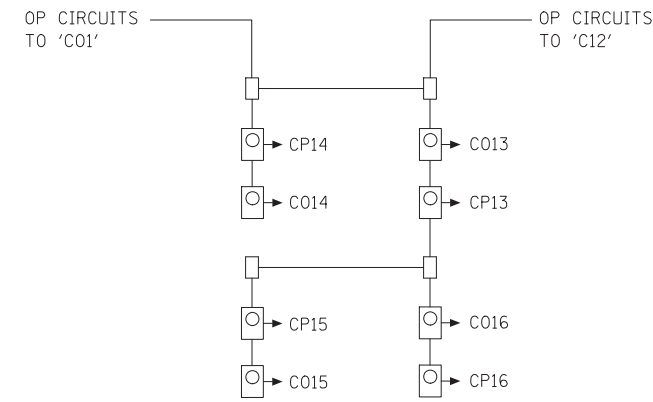
Globetrotters* Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = mikosir	DESIGNED KJC	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONTROLLER REMOVAL SCHEMATICS - CONTROLLER C MANNHEIM ROAD		F.A.P. RTE. 330	SECTION 0105-WRS	COUNTY COOK	TOTAL SHEETS 537	SHEET NO. 295	
	PLOT SCALE = 50:1	CHECKED LVA	REVISD -				CONTRACT NO. 60P35					
	PLOT DATE = 08-OCT-2012	DATE 10/09/2011	REVISD -				ILLINOIS FED. AID PROJECT					
							SCALE: NONE	SHEET NO. 4 OF 5 SHEETS	STA. 96+00.00 TO STA.			



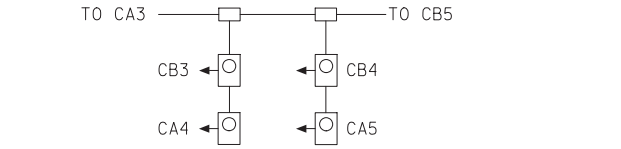
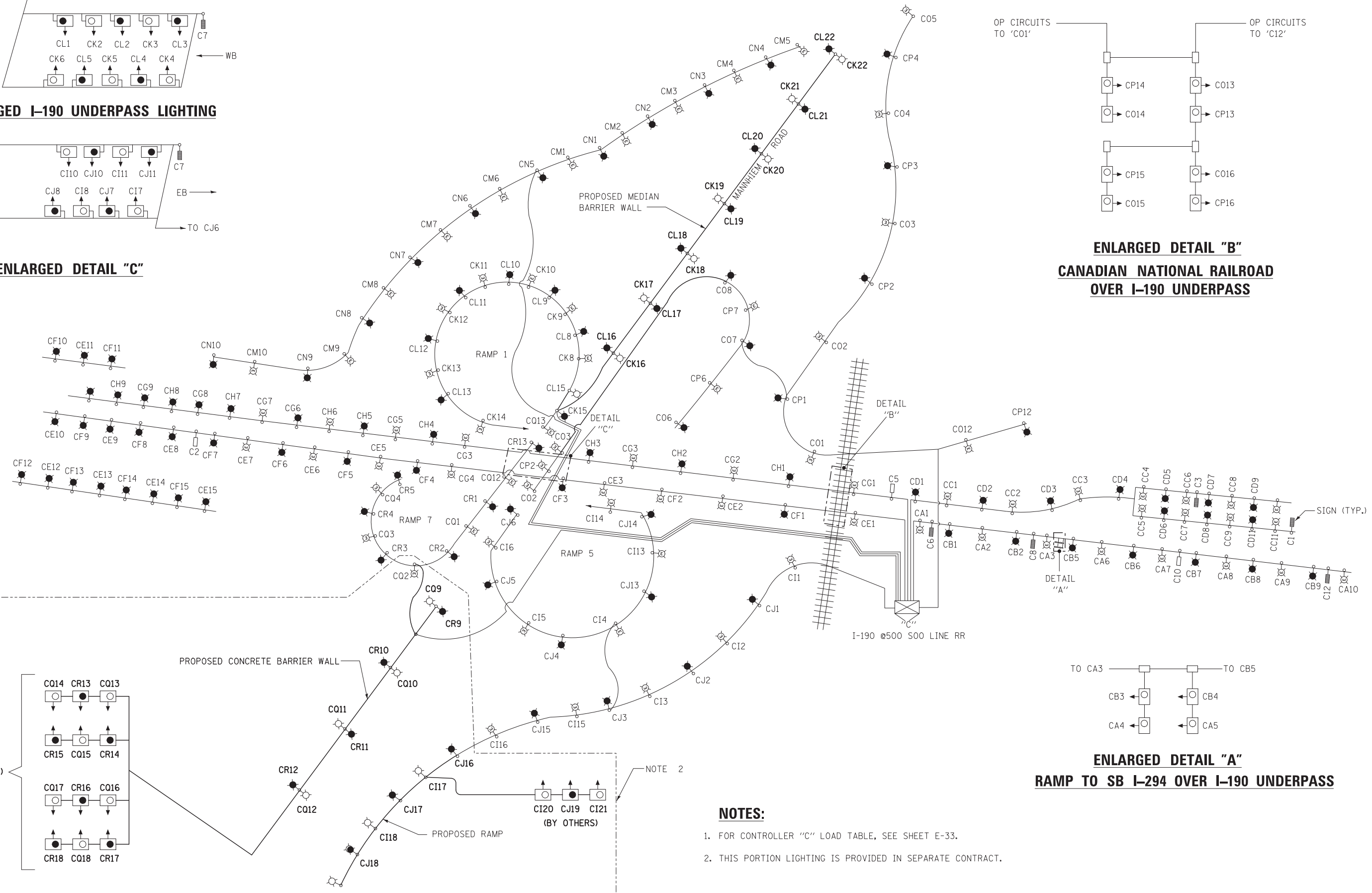
ENLARGED I-190 UNDERPASS LIGHTING



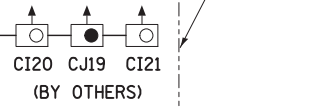
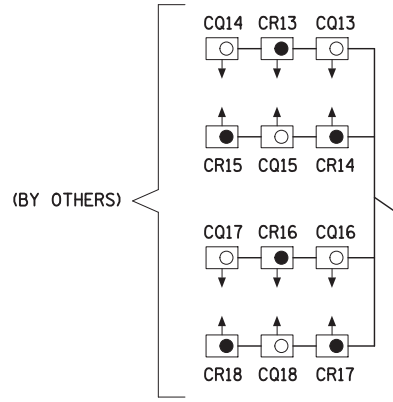
ENLARGED DETAIL "C"



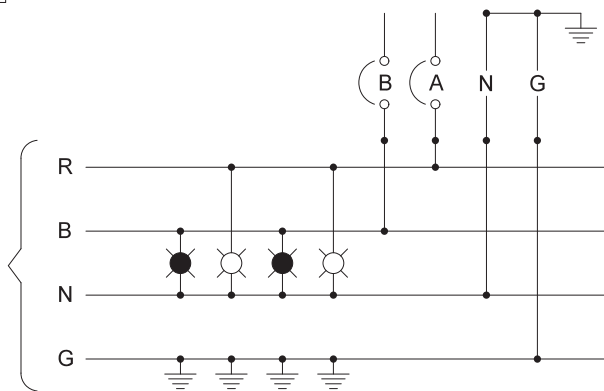
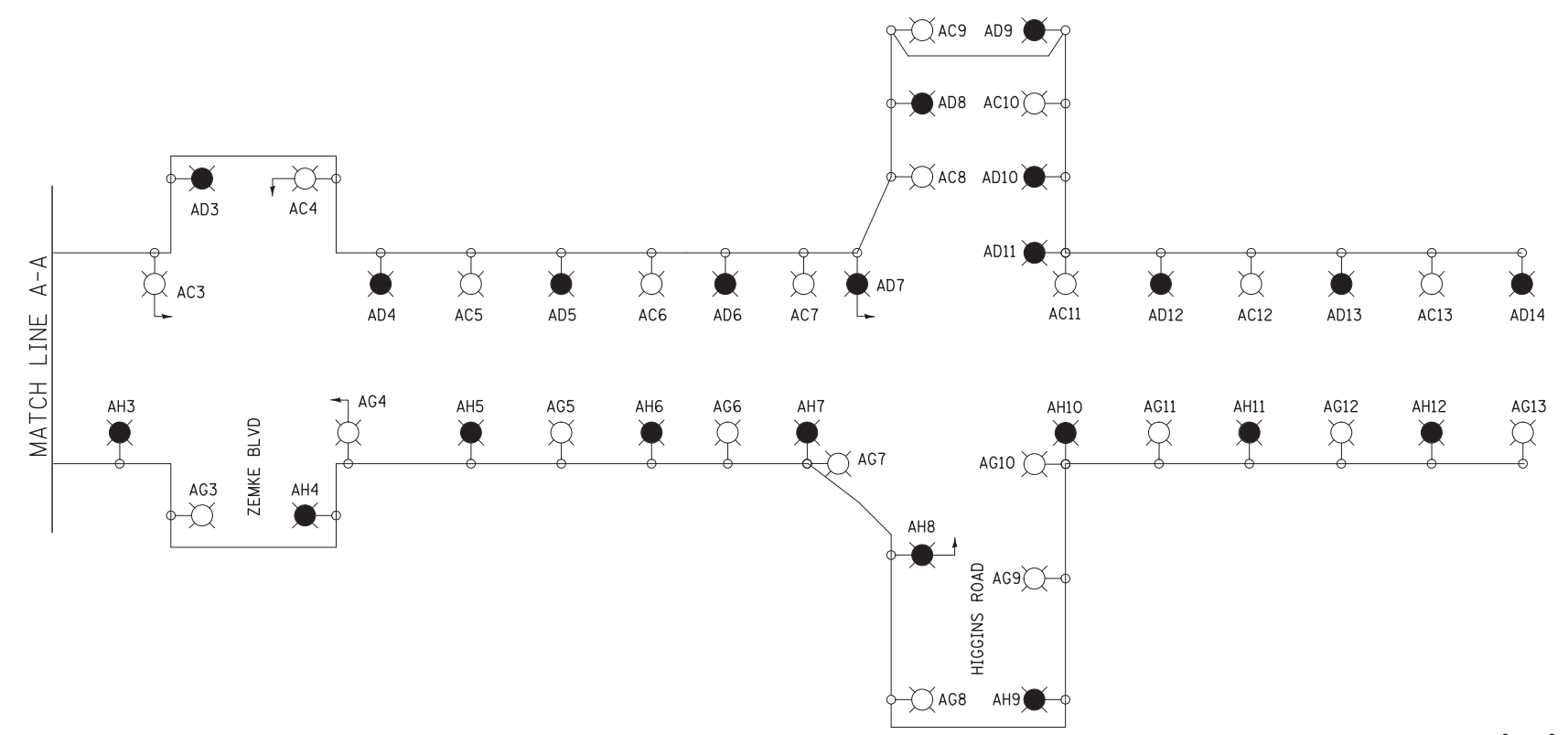
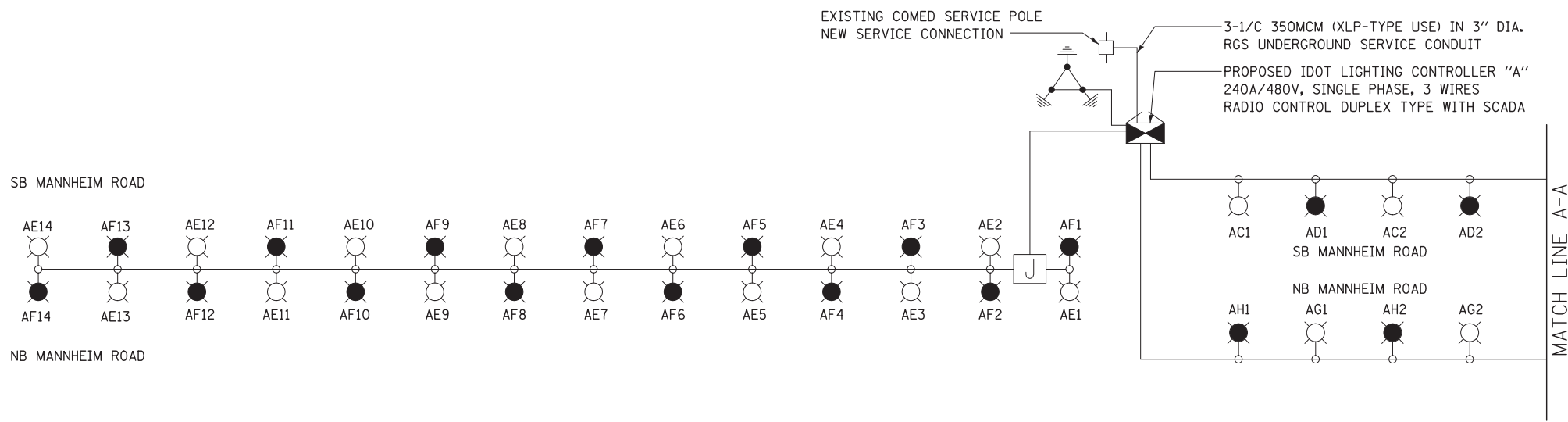
**ENLARGED DETAIL "B"
CANADIAN NATIONAL RAILROAD
OVER I-190 UNDERPASS**



**ENLARGED DETAIL "A"
RAMP TO SB I-294 OVER I-190 UNDERPASS**



- NOTES:**
- FOR CONTROLLER "C" LOAD TABLE, SEE SHEET E-33.
 - THIS PORTION LIGHTING IS PROVIDED IN SEPARATE CONTRACT.



**LOAD TABLE (AMPS)
EXISTING CONTROLLER "C"
240/480V, 1PH, 3W**

CKT. TAG	PHASE A	PHASE B	LUMINAIRES
A	28.10	----	7-400W HPS 2-55W LPS 30-85W FLUD (SIGN)
B	----	27.10	8-400W HPS 2-55W LPS 24-85W FLUD (SIGN)
C	30.98	----	11-400W HPS 20-85W FLUD (SIGN)
D	----	22.33	11-400W HPS
E	28.17	----	7-400W HPS 8-250W HPS 10-85W FLUD (SIGN)
F	----	32.97	7-400W HPS 8-250W HPS 20-85W FLUD (SIGN)
G	20.00	----	8-400W HPS 3-250W HPS
H	----	18.00	7-400W HPS 3-250W HPS
I	28.97	----	10-400W HPS 3-310W HPS 7-70W HPS
J	----	27.54	10-400W HPS 3-310W HPS 6-70W HPS
K	29.07	----	7-310W HPS 6-250W HPS 2-200W HPS 6-70W HPS
L	----	27.03	7-310W HPS 7-250W HPS 6-70W HPS
M	12.70	----	10-250W HPS
N	----	12.70	10-250W HPS
O	19.71	----	9-400W HPS 4-70W HPS
P	----	15.61	7-400W HPS 4-70W HPS
Q	19.11	----	3-400W HPS 4-310W HPS 1-250W HPS 6-70W HPS
R	----	19.11	3-400W HPS 4-310W HPS 1-250W HPS 6-70W HPS

**LOAD TABLE (AMPS)
IDOT CONTROLLER "A"
240/480V, 1PH, 3W**

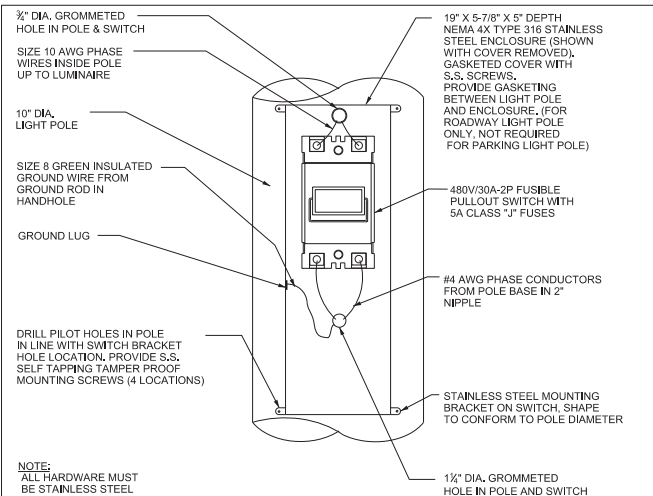
CKT. TAG	PHASE A	PHASE B	LUMINAIRES
A	----	----	
B	----	----	
C	20.28	----	13-310W HPS
D	----	22.06	14-310W HPS
E	22.06	----	14-310W HPS
F	----	22.06	14-310W HPS
G	18.91	----	12-310W HPS
H	----	20.48	13-310W HPS
I	----	----	
J	----	----	

TOTAL AMPS AT 240V	61.45 A	64.60 A
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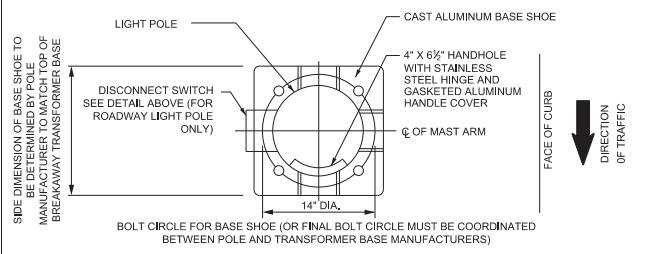
TOTAL AMPS AT 240V	216.81 A	202.39 A
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NOTE:
1. FOR CIRCUITS I/J & R/Q OFF CONTROLLER "C", PROPOSED LIGHTING HAS BEEN CONNECTED IN SEPARATE CONTRACT.
2. LOADING ASSUMES 22% BALLST FACTOR ON ALL LUMINAIRES.

LUMINAIRE WIRING DETAIL (TYPICAL)

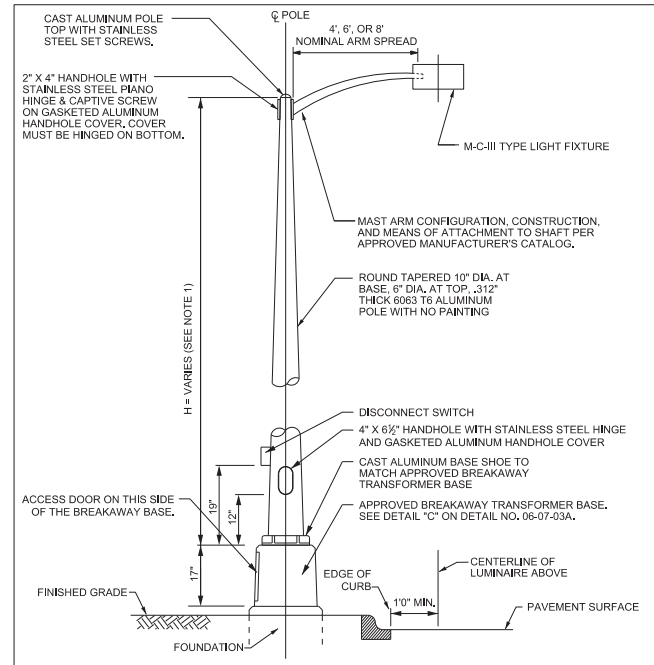


POLE DISCONNECT SWITCH DETAIL FOR ROADWAY LIGHTING
NOT TO SCALE



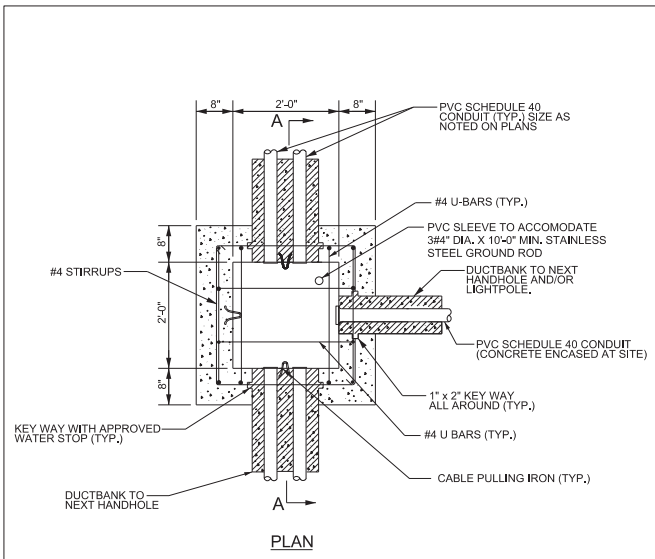
BASE SHOE PLAN DETAIL/HANDHOLE AND DISCONNECT SWITCH ORIENTATION PLAN FOR ROADWAY LIGHTING
NOT TO SCALE

Computer Filename 06-07-03.DGN	Chicago Department of Aviation/O'Hare Modernization Program Design and Construction Standards	Issue Date: 6/30/2010 Detail No.: 06-07-03	REV 4
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TYPICAL LIGHT POLE DETAIL FOR ROADWAY LIGHTING (SHOWING SINGLE MAST ARM ONLY)
NOT TO SCALE

Computer Filename 06-07-02A.DGN	Chicago Department of Aviation/O'Hare Modernization Program Design and Construction Standards	Issue Date: 6/30/2010 Detail No.: 06-07-02A	REV 2
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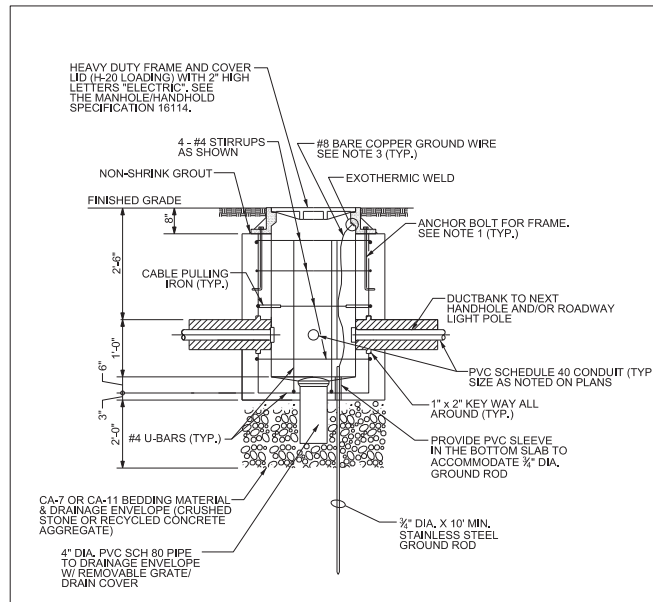


TYPICAL ROADWAY LIGHTING HANDHOLE PLAN
(NOT TO SCALE)

NOTES:

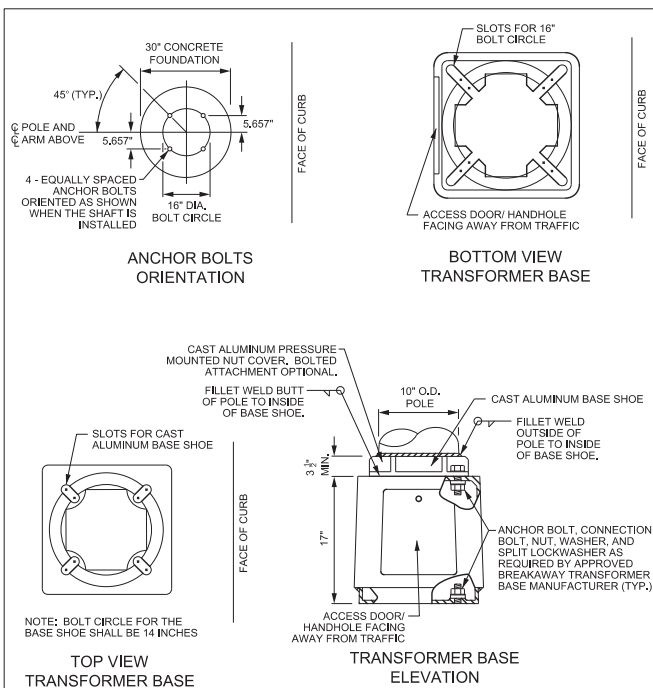
1. 3/4" DIA. X 16" LONG ANCHOR BOLTS FOR HANDHOLE FRAME, (4 REQUIRED) 2" PROJECTION AND 2" HOOK REQUIRED. FOR PLACEMENT, SEE DETAIL NO. 6-06-08R.
2. FOR SECTION A-A, SEE DETAIL NO. 6-06-08R.

Computer Filename 06-06-07R.dgn	Chicago Department of Aviation/O'Hare Modernization Program Design and Construction Standards	Issue Date: 08/31/2009 Detail No.: 6-06-07R	REV 0
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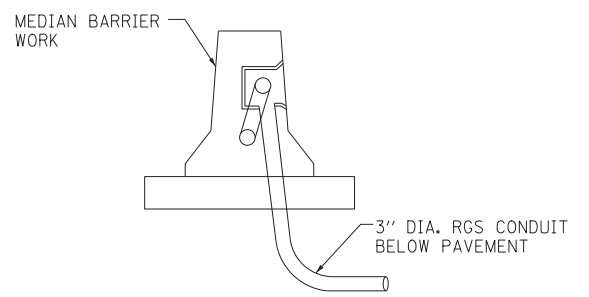
SECTION A-A TYPICAL ROADWAY LIGHTING HANDHOLE
(NOT TO SCALE)

Computer Filename 06-06-08R.dgn	Chicago Department of Aviation/O'Hare Modernization Program Design and Construction Standards	Issue Date: 9/30/2011 Detail No.: 6-06-08R	REV 3
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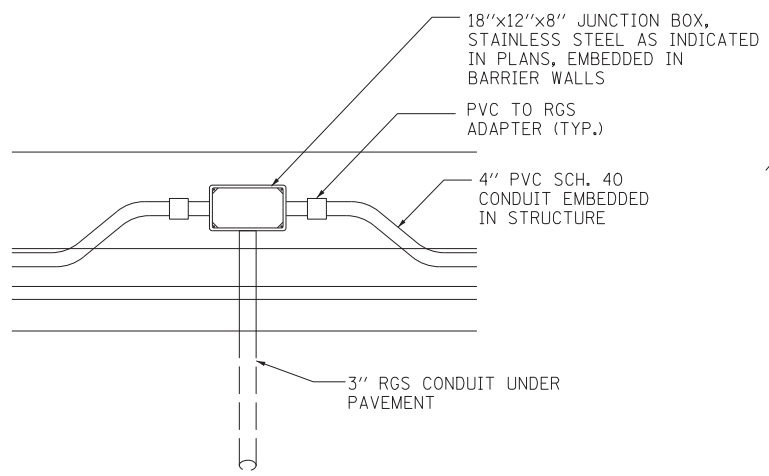


DETAIL "C" - BREAKAWAY TRANSFORMER BASE FOR ROADWAY LIGHTING
NOT TO SCALE

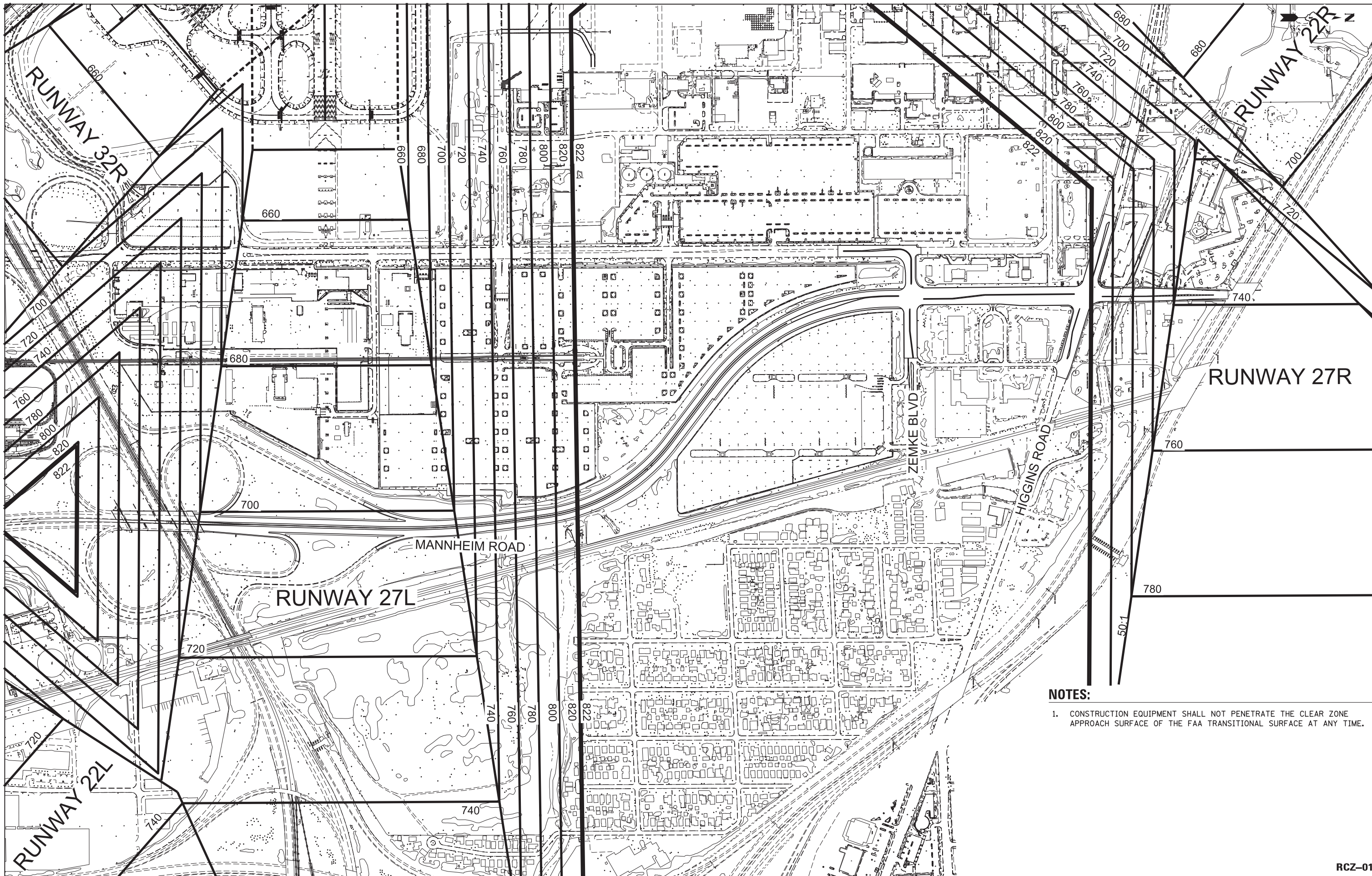
Computer Filename 06-07-03.DGN	Chicago Department of Aviation/O'Hare Modernization Program Design and Construction Standards	Issue Date: 6/30/2010 Detail No.: 06-07-03A	REV 0
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JUNCTION BOX EMBEDDED IN CONCRETE BARRIER
N.T.S.



SINGLE DUCT BANK DETAIL
N.T.S.



NOTES:

1. CONSTRUCTION EQUIPMENT SHALL NOT PENETRATE THE CLEAR ZONE APPROACH SURFACE OF THE FAA TRANSITIONAL SURFACE AT ANY TIME.



USER NAME = mksosr
 PLOT SCALE = 300:1
 PLOT DATE = 08-OCT-2012

DESIGNED LLS/MMK
 DRAWN MMK
 CHECKED LLS
 DATE 10/19/12

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**RUNWAY CLEAR ZONES
 EXISTING**

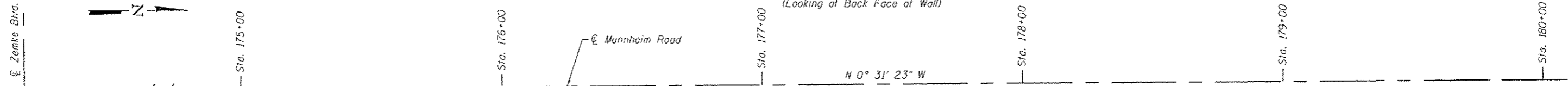
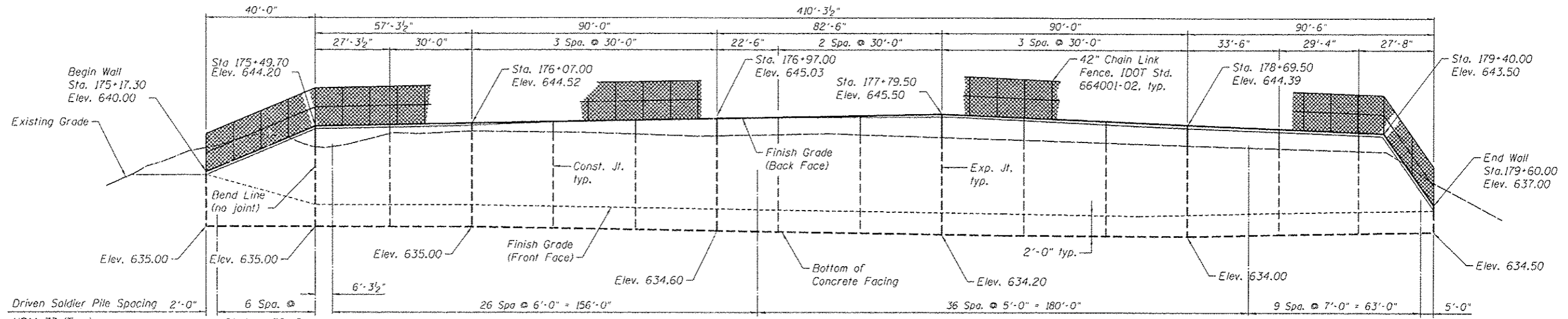
SCALE: 1" = 300' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	299
				CONTRACT NO. 60P35
ILLINOIS FED. AID PROJECT				

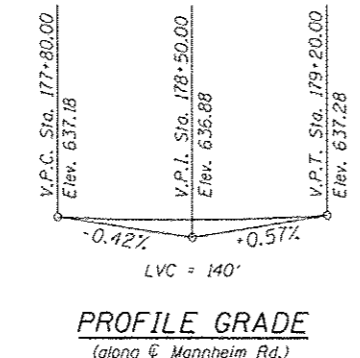
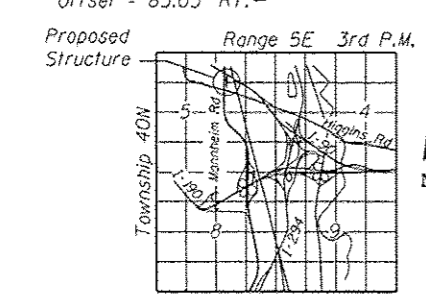
RCZ-01

BENCH MARKS

TBM "C" East Flange Bolt of top flange of fire hydrant that reads #6 and #0 stamped into steel tag. Fire Hydrant is ±340 feet north of Zemke Blvd. and about 8 feet east of the east curb of N. Mannheim Rd. (Rt. 12, 45) N 1,941,439 E 1,106,298 Elev. 640.54



Note:
Connect Pipe Underdrain below Retaining Wall to Storm Sewer System



DESIGN SPECIFICATIONS
2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

NAME PLATE
See Std. 515001

STATION 175+17.30
BUILT 201 BY
STATE OF ILLINOIS
F.A.P. RTE. 330
SECTION 0105-WRS
STRUCTURE NO. 016-2009



APPROVED
For Structural Adequacy Only

Stephen E. Alsbury
Engineer of Bridges & Structures

GENERAL PLAN & ELEVATION
MANNHEIM ROAD
F.A.P. RTE. 330 - SEC. 0105-WRS
COOK COUNTY
STATION 175+17.30 TO 179+60.00
STRUCTURE NO. 016-2009

9901 S. Western Ave.
Chicago, IL 60643
Ph. 773-881-4788



USER NAME :	DESIGNED - SEA	REVISED
PLLOT SCALE :	CHECKED - CJE	REVISED
PLLOT DATE :	DRAWN - SCS	REVISED
	CHECKED - SEA	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-WRS	COOK	537	300
			CONTRACT NO. 60P35	
ILLINOIS FED. AID PROJECT				

C:\coddip\pw\ssstegman\pww\creat_tokres\dms47849\016-2009-60P35-01-CPE.dgn